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PROBLEMS IN THE COLLEGE TRAINING OF THE DIETITIAN[1]

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THE college education of an administrative dietitian becomes a harder task each year as the standards of the profession become more clearly defined. In the earlier days of this profession home economics students were accepted by colleges when, and if, they had graduated from high school. Today so many young women are seeking this type of training that many colleges are finding it possible to admit only those students who give promise of professional success. The selection of students, therefore, becomes a difficult one since we do not have sufficient evidence of correlation between individual qualities which can be known before college entrance or before the selection of a major interest while in college, with success after college. Such evidence needs to be accumulated. Certain it is, from facts now available, that success as a dietitian does not automatically go along hand in hand with grade placement in high school or college.

We are none too certain at present what we mean by professional success. Do we mean that a student upon graduation has been able to get a position and hold it with qualified approval thereafter, or do we mean something else?

Colleges are confronted directly with the question: "What students should be encouraged to take a dietetic course?" We list personal qualities that such a person must have and then have no way of determining whether the candidate has these qualities. Pennsylvania State College has started a research designed to develop a battery of tests which will be useful in determining the answer to this question and which measure general intelligence, dexterity of various types, vocabulary capacity, and interest ratings. Such studies should be given all the cooperation possible from a professional group and in years to come some satisfactory criteria will probably be forthcoming.

In the meanwhile colleges are carrying on, selecting their students by some means or other. The resultant group must be handled in such a way as to produce so-called dietitians, ready to undertake responsible work in some type of dietary position.

Another question of vital importance is: "What type of college curriculum is

[1] Based on addresses before the 1940 annual meetings of the American Dietetic Association and the Pennsylvania Dietetic Association.

desirable for the student who wishes to be prepared for the responsibilities of a dietitian?" Too little study has been given to this question. In 1930 the University of Rochester, through a questionnaire method, secured from many dietitians a listing of their actual work responsibilities for a given number of days. This study still serves as the best of its kind.

DUTIES OF ADMINISTRATIVE DIETITIANS[2]

I Supervision of Plant
1. Securing site or location
2. Plant and equipment design and requisitioning
3. Installation of equipment
4. Plant cleaning and sanitation
5. Plant maintenance

II Purchasing
1. Food
   a. Securing purchasing information
   b. Purchasing and requisitioning
   c. Receiving and inspection of goods
   d. Storage and issue of stock
   e. Keeping of records
2. Equipment
3. Furnishings
4. Supplies

III Food Production and Service
1. Planning menus
2. Recipe standardization
3. Supervision of preparation
4. Service of food, regular and special
5. Transportation and service of food to hospital patient
6. Advertising
7. Sales supervision

IV Personnel Management
1. Hiring employees
2. Division and scheduling of duties
3. Training of employees
4. Health and safety of employees
5. Maintenance of morale

V Financial Management
1. Budget making and control of operations under budget
2. Cost accounting
3. Invoices
4. Accounts and statements
5. Payroll
6. Keeping records of financial transactions

VI Diet Therapy—Hospital Only

VII Teaching—Hospital Only
1. Pupil nurses
2. Student dietitians
3. Patients
4. Interns
5. Employees

Other colleges have attempted to make such studies among their own graduates and to have them indicate the college courses which had proved most helpful and those which had little direct relationship to the work of a dietitian. While questionnaire answers are always somewhat disappointing, much of apparent value can thus be secured. We need help from those of you who are actually in the midst of solving problems. You may say, "Certain I am that I do not need all the chemistry I had in college." But how much chemistry do you need, to give you the ability to understand that article which you may have just read in the *Journal* of the American Medical Association? Could you have carried out the dietary described without an understanding of the vocabulary used in the article? You may say that more cost accounting should have been included in your course. If such a statement were made by any number of you, it would be significant and would suggest a change in emphasis in college work.

[2] Studies made under the direction of Dr. W. W. Charters by May D. Benedict, director of the School of Home Economics, Rochester Athenaeum and Mechanics Institute, June 1930.

At least the considered opinions of persons who are in the field are badly needed to help colleges shape the curriculum.

The American Dietetic Association, as you know, has drawn up a list of subjects which must be included in the curriculum of any college whose graduates are acceptable candidates for admission to the approved post-graduate courses for dietitians. The present list of subjects is available in Outline 1 obtainable through the Chicago office of the American Dietetic Association.

From this list it is to be noted that emphasis is upon certain credits to be earned, not upon objectives to be attained, mastery of subject matter to be acquired, experiences to be provided, or desirable methods to be used. This approach is in sharp contrast to work now going forward in teacher training institutions, but is quite in accord with certification procedures.

In determining the curriculum to be prescribed for a dietetic course, each college at present is first making certain that the curriculum includes the specifications set up by the American Dietetic Association, and then is adding those things which seem most desirable in the light of objective data at hand. Again our professional group needs to acquire more objective evidence upon which to base action in curriculum revision.

An evaluation of the effectiveness of the present curriculum may be made by studying the specifications set up by employers for candidates for positions. Specifications listed in recent letters reaching our office include: a person who knows good food, who is interested in giving it to us year after year and who will keep us guessing as to what is to come next; a person who can keep costs under control; a wholesome, cheerful, good-looking person to have about; one who knows what work to expect from her employees and how to help them accomplish the desired amount of labor; one who has a fine sense of order and who will see that it is maintained; one who knows how to have a good time and who will not become embittered by too close application to a job; one who will enter into the activities of the group life with zest and accept social responsibilities in the group; one who knows the nutritional needs of our group and who will see that they are met; and one who will help us maintain a high standard of food service. While these statements are put in the positive sense, it is well to consider that each one is emphasized probably because in the past these qualities of a dietitian have either been found to be quite pronounced or grossly lacking.

Employment records also reveal facts concerning trends in demands for dietitians. At present there is a continuous demand for well-trained hospital dietitians and school lunchroom directors, and increasing demands for supervisors of food production in commercial concerns, aviation and railroad services, and for dietitians in state institutions and Army service. Each of these services should receive the type of detailed study which Rochester undertook for a few groups. Such studies would reveal the elements common to all which could serve as the fundamental essentials upon which to base college preparation.

Drexel Institute of Technology, after consideration of evidence available from the Rochester study, questionnaire evidence secured from graduates, factors emphasized by employers as requisite

qualities of a dietitian, and factors indicated by employment trends, determined the objectives which are now used as guides in shaping the curriculum and in planning learning experiences for its students. These objectives include the following, the first four of which are general and should, in our judgment, form the basis of any home economics program:

1. To develop such abilities, habits and attitudes as will produce effective mental, physical, emotional and spiritual life for the individual.

2. To develop such attitudes, understanding and abilities as will give an individual power to analyze and evaluate social problems as a functioning member of the family, social and civic groups.

3. To develop the appreciations, abilities and habits which are essential in the determination of standards of living and in a satisfactory solution of the economic problems of the family.

4. To develop appreciations and understanding of the aesthetic values in personal and group living in order to enable the individual to find enjoyment and creative satisfactions in the cultural aspects of life.

5. Institutional Administration Major: (a) to develop an understanding of the fundamentals of organization and the principles of scientific management as they apply in the administration of an institution; (b) to develop an understanding of the problems involved in the operation of the building and the service of food in an institution; (c) to develop an ability to cooperate with others in handling these problems.

These objectives I have broken down into a form which will emphasize certain phases of the work as follows: ability to do work well; to assume leadership of a project and to get others to cooperate in carrying out the project; to visualize a situation in detail and to make administrative plans for the accomplishment of desirable results; to give directions concretely, using a well selected vocabulary; to plan so as to expedite work; to inspire others; to work well with others—superior officers, fellow-workers, employees, and customers or patients; to handle the financial phases of the work expertly; to maintain high standards of food preparation on the financial level available; to weigh facts and upon the basis of these facts to make decisions quickly; and, finally, to develop an avocational experience which will give fulness of life for the individual.

The personal qualities needed vary somewhat with the type of job, but certain it is that anyone entering this profession must have sufficient intellectual capacity and interest to enable her to acquire knowledge concerning certain masses of subject matter. She must have the ability to use this knowledge in the solution of actual situations presented in the dietary world. Do you notice that these last two sentences have been couched in general terms, because I am none too certain that the subject matter presented to college students today is the most significant that could be selected.

Beside subject matter presentation, a student in college needs to have experiences which will tend to develop the abilities to use this information and to develop other personal qualities needed by these budding dietitians.

More "doing" experiences are desirable to help the student of today develop these characteristics. Hence the college program is set to encourage the students to assume leadership jobs in student organizations, to give them

actual food service projects to organize and carry through, to give them actual experiences in the administrative phases of the work in college food units, to urge them to use the summertime for experience in some food service situation presenting good learning opportunities and by encouraging them to take a postgraduate internship in some approved center. This is the point at which each one of you becomes important in the training of the dietitian. She needs to have undergraduate and graduate experience working under well-trained dietitians who are intolerant of anything but the finest in dietary service. She needs the stimulation of a thoughtful, experienced guide, if she is to secure all the possible learning experience from a given situation. Maintenance of standards will help her acquire habits of neatness, orderliness and standards of good food service and management techniques. On the other hand, work under some dietitians may instil a feeling that these things are not essential. This initial experience is of great importance in the professional life of a young dietitian, for she returns to college more eager to seek theories which will guide her toward a high goal.

After graduation the young dietitian needs the help and discipline which experienced people can give to her. When the student graduates, college faculties usually believe that she has made a good beginning in the type of growth desirable. From then on, individual ambition, professional discipline and the demands of a given job must provide the stimulus to growth. Too frequently dietitians become institutionalized in outlook, letting routine cut down their ambition, imagination and initiative. Such dietitians sink into lethargy and the food service becomes routine, the employees become inefficient and the organization as a whole is outmoded. How can this be prevented by the profession? Colleges can probably help by making more frequent inspection of the work of their graduates. Professional organizations can help by carrying on stimulating meetings such as this and encouraging dietitians to do graduate work or to participate in group studies and surveys, and by organizing evaluation agencies which can work with institutions and stimulate dietitians to keep alert on the job.

Colleges today need the help of every one of you in the development of the curriculum which includes, of course, all of the life experience of the college students—subjects to be taught, methods and experiences to be provided in college and in institutions cooperating with the college. Your service is an essential and vital one in the training program. Your criticism and constructive help is imperative if the "in college" work is to be made as significant as possible.

Colleges are attempting to solve problems dealing with the selection of students best qualified for dietetic service, with the planning of the college curriculum which will be functional and will provide the right amount of work to give the dietitian the required ability. Colleges are also concerned with the problem of planning graduate work that will serve the needs of the in-service dietitian, and with other services by which the college may stimulate continued growth for its graduates.

THE STUDENT DIETITIAN: AN EXPERIMENT IN COOPERATIVE EDUCATION[1]

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DURING the spring quarter of 1939, Iowa State College had the privilege of being host to a distinguished European statesman whose course in international relations was open to senior college students. Only one student majoring in dietetics was among the large group attending the course. Why? Surely the subject was of sufficient contemporary interest and the teacher well equipped to handle it. Members of the senior class in dietetics advanced three explanations: first, many had transferred to the college with advanced standing and even though they did not expect to complete the work for their college degrees in the four years prescribed, their schedules were too full of required courses to allow for an elective not listed in the dietetic major. Others were not interested and one student assured the questioner glibly and, dare we say, a trifle smugly, that she understood the hospital dietitians from whom they would soon be requesting placement preferred their elective credits in a field more closely related to nutrition or institution management.

There is an increasing trend in the college of high scholastic standing to emphasize the need for what certain leaders have termed "education for life." Edward Lindeman (1) says that "the purpose of education is to equip people to earn a living, to participate in government, to enjoy literature and the arts and, if possible, to contribute to man's increasing store of tested knowledge." The student of superior intellectual endowment has created a problem in the routine organization of college classes since he masters the mechanics of earning a living more rapidly than the average, and all too often he is limited in his quest for knowledge by the capacity of the average. As a result his curiosity is stifled for so long that it presently dies and he joins the unimaginative majority who manage to "pass" with as little pain as possible. For the past few years Iowa State College has had a special committee working on the problem of the superior student. This year a program of supervised study was initiated whereby certain students of outstanding ability in both scholarship and leadership have been chosen to continue their work under skilled faculty guidance but without obligation for classroom attendance, routine assignments and so forth. At present there are no dietetic majors in this group and probably there will be none because it would not be possible to certify to the Professional Education Section of the American Dietetic Association that the student who had received credit for a given course by examination had participated in all of the required hours of laboratory and lecture. These students wish and expect to obtain both positions and professional recognition on graduation from college and their reaction to the Ameri-

[1] Read before the Session on Problems in Education, American Dietetic Association, New York, October 24, 1940.

can Dietetic Association's requirements is characteristic of the realism of the modern college student: "We'll change our majors. There are positions in commercial foods, in extension or teaching where the employers will prize the experience which we will have had in the directed study program." Unfortunately for the profession of dietetics, which will lose some capable leaders, this is true.

Three young women, for instance, all of whom have had three to five years successful experience in the practice of dietetics, have chosen to continue their education in the graduate schools of our larger colleges. One would have preferred to return to a dietetic position, preferably in a hospital, but when she had completed the requirements for the doctor's degree in nutrition, no position was found which offered even a reasonable return on her investment in education and there was a college eager to engage her services. The other two are preparing themselves for other types of nutrition work and are loath to discuss the reasons for their decision. What has influenced them to give up the advantage of experience in their search for a position which means starting at the bottom in another nutrition field?

Margaret Gillam (2) reports that less than eleven per cent of the dietitians who furnished data for her questionnaire had completed requirements for advanced degrees. Yet advanced study usually indicates more than average professional interest as well as ability and we can expect to draw many of the future leaders of our profession from this group. Why should their number be so small and why are students with advanced training seeking other fields? The answer seems to be partly economic though there is an undercurrent of dissatisfaction with the opportunities for personal and professional growth. One capable young negro woman who had completed her training at Freedman's Hospital and is now teaching in a city high school and studying for an advanced degree in the summer, put the case quite clearly when she said, "I like the things that money will buy as well as you do and I like to be able to choose the place where I will live and make my friends." Again quoting from Miss Gillam's report, we find that the mode of the distribution of salaries for the chief dietitian is $100 to $110 per month and that of the assistant $80 to $90. Vacations most frequently are for two weeks which does not allow an opportunity for study or extended travel. Of 1082 dietitians whose salaries were reported, only 46 do not "live in."

These are limited observations. However, it is reasonable to suppose that other young women who see the possibilities of dietetics as a professional field are thinking along similar lines as they attempt to establish themselves in a gainful position of reasonable security in a world where ideals and civilization itself seem to be trembling on a very uneasy pedestal. What is the significance of these observations to the individual dietitian, to the profession as a whole and, particularly, to the Professional Education Section of the American Dietetic Association which is directing the training of the future dietitian? Perhaps we can answer this question by asking another: "What do we want the future dietitian to be and how must her training be modified? What can we do as an organization to direct her growth?"

In 1935, Mrs. Dodge (3) stated that a nutrition department head must bring to her job three assets: (1) sound professional training and experience, (2) personality, and (3) administrative ability. The Professional Education Section has fostered the first objective and we are justly proud of the progress in both colleges and hospital and administrative training centers in coordinating the educational program of the future dietitian. However, in attempting to guarantee an educational background of minimum professional essentials, the emphasis at present is distinctly on quantity, *i.e.* hours of credit earned in the college by attendance at specific lectures and laboratories and certain weeks spent in each of several services in the hospital training course. Is this emphasis good? The struggle in the college to dovetail the subject matter requirements of the American Dietetic Association with the demands of the college administration for adequate prerequisite courses and some cultural background, results in a program with long hours of laboratory and very few elective credits during the college years. In other words, the college student majoring in dietetics is being pressed into a mold which guarantees a certain amount of theoretical, professional information and but little spontaneous development of the individual.

What makes certain of your friends interesting people? Not their professional success necessarily, since they seldom mention it, but rather their enthusiasm, information and conversational ability which breaks down the barriers which people, particularly ill people, build about themselves. Moreover, on the professional side, information to be effective must be used. For instance, what better means of learning to write discriminating English, the need for which Mrs. Dodge (4) has emphasized, than by editing a department in the monthly home economics magazine? However, the magazine must go to press on time and editing requires a few free afternoons during the month. Consequently the student with a schedule of daily afternoon laboratories almost inevitably misses this opportunity. Yet it is through such participation that the student is made to stand on her own feet in the exercise of judgment, administrative and managerial ability in a way never achieved in the classroom. Extra-curricular participation is possible at Iowa State College for a few of the dietetic majors. We have laboratory evidence, however, that the student who accepts such responsibilities does so at the cost of excessive fatigue. The transfer student seldom has time in her schedule for participation except in purely social activity. Do we wish to sacrifice these educational experiences for our students or do we need to reevaluate our college programs in terms of quality of course content? For example, could some courses be taught without laboratory? Should a course such as diet therapy be taught at all in the college where the lack of both staff and patients makes it an artificial situation with few of the aspects of a good learning process? Can diet therapy be well taught by a college instructor whose claim to competence lies in a year or two of hospital experience sometime in the past? Should we ask the same question concerning other required courses, trying to keep in mind the ultimate educational advantage to the student and for the

moment, to forget the inconvenience to ourselves in the reorganization of our own programs? It is hard to recall that most growth is painful.

The other alternative seems to be that of lengthening the college course. However, the dietetic major who spends the required year in internship already is giving five years to her academic training and the keener, better equipped students are fully aware of the cost of that training and the probable rewards in both money and personal satisfactions. We will always have the mediocre student who sees security in the completion of a prescribed program but can the dietetic profession afford to lose the alert, thinking student who is beginning to question how far standardization is worth the price?

What of personality? The more vivid and arresting the personality, the more difficult it becomes to distinguish between the individual who can differ constructively and make the world like it and the individual who differs but is at war with herself and the world. What has gone into the making of each? How fit the personality to the job? Do we wish to suppress all differences? Occasionally organized warfare such as that imposed on an ignorant world by a Pasteur, achieves a growth impossible with less militant methods. These are questions only too apparent to the dietitian faced with an obvious "misfit." However, since the misfits are usually energetic, could we not use that energy if we take the trouble to direct it?

For the college, personality development may fail woefully in the classroom. This is particularly true in the larger school. We have attempted to direct the attention of the class and teacher to the importance of the problem with such devices as personal recommendations, rating scales and the like, whereby a student's fitness for her chosen profession may be estimated. All too frequently, however, the ratings, even when they are a fair evaluation of the student, are buried in the dean's file until the student is to be recommended for a position, when they may be of doubtful advantage to her. Why not make personality ratings available to the interested student as we do grades? Perhaps the college counsellor could serve as confidante and adviser. Kansas State College has appointed a committee, one of whose functions is to direct and advise the senior college student majoring in dietetics.

Another phase of personality adjustment which we may fail to consider is the natural tension of an inexperienced individual in a new and difficult situation in which she has all too often been told that she must make good "or else!" When she explodes and does the clumsy, awkward thing, is it misguided personality—or just plain worry? Could we have avoided the unfortunate situation by more information? We decided a few years ago that we could try. Out of that decision has grown the allocation of a small room for the use of dietetic majors. The room contains a round table whose only virtue is its serviceability, six chairs, and a series of cardboard cartons pilfered from the janitor's closet. These cartons contain every scrap of information which we have been able to secure about the training hospitals and administrative courses and their personnel. A small bulletin board is used for announcements and suggested library readings. In addition, the Foods

and Nutrition Section of the Home Economics Club has made possible a discussion hour to introduce the subject of application for training. Juniors and seniors are invited to the discussion and staff conferences encouraged as soon as the student has familiarized herself with the opportunities open to her. Any junior uncertain of herself is urged to secure employment in a hospital during the vacation between her junior and senior years. Such experience should leave no doubt in her mind whether she should continue to major in dietetics. The committee on student guidance at Kansas State College undertakes a similar program of orientation and many other colleges and universities schedule informal meetings with their students as an aid to placement, generally in the senior year. Should we start earlier?

Perhaps a day or two of orientation and observation in the hospital directed by the head dietitian and her staff would serve further to reduce the tension incident to first experiences and familiarize the student with the physical plant and the general organization of the staff. One graduate reported that she had been in training for two months before her head dietitian became more than a name to her. They met, quite by accident, at a social function not connected with the hospital. Perhaps this is an unusual incident but sometimes are we not more aloof than we need be with the student who is feeling strange and a little homesick, thereby encouraging her to "bluff it out" rather than ask for guidance?

Administrative ability was listed as the third major qualification of the successful dietitian. What do we mean by administrative ability? Most of us visualize the capable administrator as one who can direct operations smoothly and acceptably, who maintains the respect of both her employees and her superiors, who is cognizant of the import of costs in her planning and able to interpret her department needs to the budget committee and who is, herself, a poised and disciplined personality. During the years when the dietitian was establishing herself professionally, the attainment of these abilities represented high achievement. Today a hospital superintendent who has been exposed to efficient supervision of his food service unit is very apt to take such talents for granted. Why shouldn't the modern dietitian be an efficient administrator? That is one of the things for which she is paid. However, is administrative efficiency enough? A dietitian with a smoothly running organization from the standpoint of administration, may insist on certain dietary practices which her student dietitians can not justify in the light of modern nutritional knowledge. Or the department head may appear to believe in normal nutrition for the ward patient, but not for herself. The dietitian should be able to offer effective leadership to the doctor, nurse, patient, and members of her own staff in adjusting their nutritional problems. Is not such leadership in reality a measure of administrative ability?

Lack of correlation of theory and practice is not limited to the hospital. Some time ago an astute student observed that the members of the foods and nutrition staff of Iowa State College who obtained their luncheon at the Institutional Tea Room were not drinking milk. She went so far as to speculate when and how they received the pint per day which they taught as a desirable adult minimum.

She was right. The staff were not practicing what they chose to preach and were humanly indignant at being reminded of this. The noon milk consumption, however, has increased notably.

It is probable that a part of our indifference to the practical application of dietetic theory is the result of a certain superficiality in the teaching of fundamentals. One is always amazed at the number of students who have obtained credit for normal nutrition and dietetics without really understanding the mechanics or the theory of a balance experiment, yet most of the recommendations for the dietary standards which they glibly quote are based on this fundamental experiment. However, dietetics today is "on the spot," if you will permit the expression. Dietitians have attained certain recognition on the concept of better food for better bodies. Unless we believe in that concept and instill it in our students to the extent that it is a part not only of our daily personal practices but of all our professional practices and teaching as well, we shall soon be recognized as capable technicians but we shall have lost a place of leadership in the field of applied nutrition.

How does one teach leadership? The answer, of course, is that one doesn't, directly. Opportunities for leadership can be provided in the classroom, in the part-time job and through extra-curricular activity. With skilful guidance it is possible to be certain that the student has all the facts necessary for leadership in the particular problem at hand. However, the student must have time to work and live with the problem and here again crowded college schedules tend to encourage superficial leadership as well as superficial learning.

The content of this paper has been presented as a series of questions which are raised concerning the influence of modern educational trends on our profession and the training which we have set up as preparation for this profession. Real education, fortunately, is a very labile process. Has the time arrived when we as a profession should scrutinize our recommended educational program for that flexibility which would appear to be necessary if we are to continue to grow as we have in the past? I leave this fundamental question for your consideration.

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ENRICHED BREAD—AN ANSWER TO MALNUTRITION?[1]

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DURING the past forty years our concept of an optimal diet has undergone sweeping changes. No longer does the nutritionist agree with Atwater, who at the turn of the century advocated the eating of food solely to satisfy our protein and energy needs. Our newer concept of nutrition today reveals that there are at least 35 components of a normal diet. Ten of these are amino-acids derived from proteins, 13 are minerals, and some 10 are vitamins. Sources of essential fatty acids and carbohydrates complete this picture. Absence, in whole or in part, of any of these essentials produces deficiency states as manifested in illness. The newer knowledge of nutrition, based on experimental evidence, assures us that a completely adequate dietary can be obtained by the inclusion in our diet of the so-called protective foods: namely, milk, whole grain cereals, green leafy vegetables and fresh fruits. That these will promote optimal nutrition when present in adequate amounts is unquestioned. That all of these foods are not available to our entire population is becoming increasingly evident. Poverty, ignorance, indifference and poor food habits are the chief underlying factors of faulty nutrition.

Granting that a dietary can be selected which will promote optimal nutrition by use of natural foodstuffs, let us pause for a moment and ask a pertinent question. How prevalent are deficiency states in our population of 130,000,000?

As a partial answer we have the survey of Stiebeling and Phipard (1) as to the content, cost and nutritive adequacy of the diets of 4000 families living in eight major geographical sections of the country. The heads of these families were wage earners and not on relief. Most of these families spent between 25 and 40 per cent of their income for food. In every region where a small amount of money was spent for food, milk was used only in small quantities. The results of this survey point out several striking facts. Only one-third of the white families studied obtained adequate amounts of vitamin A. The diet of 10 per cent of the white families provided less than 300 I.U. vitamin B_1 per individual daily, an inadequate intake (500 I.U. B_1 daily is generally accepted as adequate for adults). Forty to 60 per cent of the diets of the white families examined were found to be in need of improvement. Needless to say, the dietary inadequacies of the negro families examined bore out this same conclusion. "About one-fourth of our families subsist on diets that could be rated 'good'; more than one-third, on diets that might be considered 'fair'; while another third or more subsist on diets that should be classed as 'poor' " (2). The so-called "poor" diets fail to meet the minimal standard for optimal nutrition in more than one respect, while the "fair" diets meet the minimal standard in all respects

[1] Presented before the Maryland Dietetic Association, Towson, April 19, 1941.

but exceed it by less than a 50 per cent safety margin, and the so-called "good" diets have a safety factor of 50 per cent or above with respect to the vitamins. The most striking observation of the survey is that as more money is available per person for food, the extra money is spent for milk, meat, eggs, green vegetables and fresh fruits. I cite this observation with emphasis for there are many today who do not appreciate this fact. It shows that on the whole the average American housewife selects wisely when enough money is available.

Jolliffe (3), on the basis of his survey of the American dietary and his extensive clinical experience, has concluded that the margin of safety against beriberi as provided by the American dietary varies from 20 to 80 per cent, depending on the method of evaluation, and that many of our borderline cases of thiamin deficiency are not recognized as such, but are diagnosed as other conditions.

The incidence of pellagra in the South is too well known to require discussion. Recently, Sydenstricker (4) and Sebrell (5) and their co-workers have shown that ariboflavinosis may be one of the most common human vitamin deficiencies.

Nearly unanimous agreement exists among nutritionists that the vitamin C intake of a considerable part of the population is not adequate for optimal nutrition. And despite the great triumph of experimental and clinical nutrition with respect to vitamin D, the problem of rickets, particularly in our great industrial centers, has not been entirely eliminated. Sherman has pointed out that the American dietary on the whole is deficient in calcium. Since the best sources of this mineral are milk, whole grain cereals and green leafy vegetables, it is readily understood why part of our population obtains inadequate amounts of this element.

Deficiencies of vitamins A and C, thiamin, nicotinic acid, riboflavin and calcium exist in the diets of many Americans, and it is becoming increasingly clear that single vitamin or mineral deficiencies seldom occur. The clinical investigations of Spies (6) and Sydenstricker (7) show that multiple deficiencies are exceedingly common, and that the treatment of a patient with a single vitamin frequently precipitates symptoms of a previously concealed deficiency. It is regrettable that in our fervor to apply the vitamins, those new and potent weapons against disease, the problem of a qualitative or quantitative protein deficiency has frequently been overlooked.

Some individuals in our population select diets which are not optimal for best health, either because of indifference or poor food habits, and not because of lack of money. However, the so-called "poor" diets are far more prevalent among the lower income groups who live on diets made up largely of highly refined foods because of lack of purchasing power. Such diets, in which almost half of the day's calories are derived from sugar and highly refined cereals contributing little more than energy, are likely to be deficient in the essential vitamins and minerals.

Although many persons who subsist on such diets do not show striking evidences of vitamin and mineral deficiencies, it is an accepted fact that such persons are more prone to infections, lack energy and initiative, and do not have a chance to enjoy life to the fullest measure. A state

of malnutrition frequently contributes to the complications of pregnancy. Although the milder deficiency states are not fatal, they usually keep the individual in a state of "half illness—half health." The recent investigations of Williams and his co-workers (8) at the Mayo Clinic on the production of acute thiamin deficiency in human subjects are worthy of attention. The diets used were complete in all essentials except thiamin. In a remarkably short time the subjects, previously energetic and happy, became depressed, irritable and enervated. These same persons could be restored to their original state by thiamin. If a single vitamin deficiency produces such dramatic symptoms, how might a "half deficiency" of all or most of the vitamins affect the individual?

Recognizing that the existence of malnutrition is incompatible with our defense program, the government has asked scientific and federal agencies to consider the nutritional problems of the nation and make recommendations for their solution. The head of these activities is the administrator of the Federal Security Agency, Mr. Paul V. McNutt. The National Research Council has appointed a subcommittee on food and nutrition, and the American Medical Association likewise has such a committee. Many prominent nutritionists and scientists serve on these committees. The Committee on Food and Nutrition of the National Research Council has proposed the addition of certain vitamins and minerals to white flour. This group agrees that white flour would be ideally suited for this purpose and, further, that the addition of these nutrients would in no way alter the attractive qualities of white bread.

As you know, white flour as we use it today is very different nutritionally from the flour used one hundred years ago. One-third of the calcium, two-thirds of the iron, three-fourths of the copper, three-fourths of the B_1, and almost all of the magnesium and manganese are removed from flour in the milling process (9). The outer bran layer with its B_1, other B vitamins and minerals, and the rich germ also containing these essentials are discarded.

The recommendations of the Committee on Food and Nutrition for the restoration of some of the essentials removed in the milling process, designate thiamin, nicotinic acid and iron as required ingredients, and riboflavin, vitamin D and calcium as optional ingredients (10). The minimal and maximal quantities to be contained in one pound loaf of bread, and the number of slices of the maximally enriched bread required to fulfil one-half of the average daily requirement for adults with respect to each of the added ingredients, are given in table 1.

Some of the major factors responsible for the recommendation that white flour and bread be enriched as the initial step in combating malnutrition in the United States are given below:

1. Improvement is so made that anyone who does not get adequate amounts of these essentials in his diet either because of poverty or ignorance would obtain a judicious selection of these factors in his staple foods. This then would serve as a preventive measure against the occurrence of deficiency states in our population.

2. The "enriched" product is to cost the consumer no more, and would therefore be of particular value for the low-income groups who are unable to buy foods containing these essentials.

3. Such a program is to be planned with the advice of specialists in the field of nutrition, and physicians, in close cooperation with the milling industry and drug houses.

4. Although the use of unmilled products such as dark bread and unrefined cereals is advocated, it is believed that the education of the public in the use of these products would take too long a period of time and might not be successful.

TABLE 1

Maximal and minimal nutrients in "enriched" bread

	MINIMUM PER POUND LOAF	MAXIMUM PER POUND LOAF	DAILY ALLOWANCES FOR ADULTS*	**SLICES OF "MAXIMALLY ENRICHED" BREAD FULFILLING 50% OF DAY'S REQUIREMENTS
	mg.	*mg.*	*mg.*	
Required Ingredients***				
Thiamin	1.0	2.0	1.66	6.5
Nicotinic acid	4.0	8.0	2.0	2.0
Iron	4.0	16.0	15.0	7.5
Optional Ingredients				
Riboflavin	0.8	1.6	2.0	10.0
Calcium	300	1200	680	4.5
Vitamin D	150 I.U.	600 I.U.	400 I.U.	5.5

* McCollum and Becker: Food, Nutrition and Health, 5th ed., p. 34, Baltimore, 1940.

** 1 slice bread equals approximately one ounce.

*** The proposed nutrients roughly approximate those obtained in a flour made by longer extraction from a wheat of high quality.

Some of the questions which can be raised concerning this program follow:

1. Does this type of "enrichment" with certain selected specific essentials meet the basic problem, namely, *the provision of a diet for our people containing all or even most of the essential factors?* As our nutritional surveys point out, incomplete as they may be, other vitamins and minerals in addition to B_1, nicotinic acid and iron are present in inadequate amounts in the diets of many people.

2. What agencies are there to see that these government specifications are enforced? The pure food, drug and cosmetic law would be of assistance since it decrees that the label on any food should state all the ingredients contained therein. This eliminates misrepresentation. However, the Federal Trade Commission into whose jurisdiction such control would fall would deal only with breads and flour sent from one state to another. Such a difficulty could be overcome if there existed active cooperation between the federal, state and local agencies.

3. Another conceivable objection is that the public may be lulled into a false sense of security in the belief that all the essential vitamins and minerals were ensured by the enrichment of bread, and thus forget the virtues of the protective foods.

4. Is there any danger of thus obtaining an excess of vitamins and minerals? Obviously not, judged by the amounts of these substances to be put into enriched bread. However, steps must be taken to prevent makers of refined milled cereals from adding vitamins and minerals to their products *ad*

infinitum. As you well know, the public is very conscious of the magical attributes of the vitamins as reflected by the fact that in 1940 over $100,000,000 was spent for vitamin preparations alone.

5. Recently, evidence has been accumulating that the question of vitamin imbalance may be of great importance. When dogs are treated with nicotinic acid in order to cure pellagra their thiamin requirements are increased (11). The administration of either nicotinic acid or pantothenic acid to dogs on diets deficient in certain components of the vitamin B complex has been observed to precipitate severe paralysis (12). Similar results have been observed in rats (13).

Thus it is clear that in carrying out this program of bread enrichment, caution must be exercised. The regulations must be enforced. Indiscriminate enrichment of other foods must be curtailed, emphasis on the value of protective foods must not be discontinued, and finally, the price of bread must not be increased.

As the critics of bread enrichment in this country and England have pointed out, this program is only a partial answer to the problem of poor nutrition. In this country where, unlike England, the production of protective foods is not a basic problem, the ideal solution would be the distribution of surplus commodities through federal and state agencies. Undoubtedly the technical difficulties involved would be great, but successful efforts along this line have been under way for sometime. America with its great agricultural resources can supply an adequate diet for all of its people, particularly at a time when many exports are of necessity restricted.

A second alternative proposed by many nutritionists and elaborated in detail by McHenry, a colleague of Best, is the addition of either wheat germ or high vitamin yeast to white bread. McHenry (14) has shown that whereas B_1 had no effect on the growth of rats fed a diet of white bread, the inclusion of 5 per cent wheat germ gave growth equal to that produced by a bread containing 20 per cent whole wheat. In this country, Morgan and Barry (15) have reported that when about 3 ounces wheat germ was given daily to underweight children a definite increase in growth resulted. It should be emphasized that wheat germ is not only a rich source of thiamin but of other water-soluble factors as well.

The advantages of such a procedure over the addition of one or more pure vitamins are obvious. The nutritive value of wheat germ or yeast is greater than any possible combination of pure substances that we know of today. We cannot yet produce as good an animal in the laboratory on synthetic mixtures as on diets containing even a relatively small per cent of protective foods. The addition of wheat germ to flour restores it to a condition more nearly resembling the whole grain in its nutritive properties. According to McHenry, bread made of such a flour possesses the characteristic whiteness of bread made from refined flour. Its flavor is not altered to any undesirable extent. In addition, such bread would not be so readily subject to misrepresentation as the vitamin-enriched bread. In the latter case, the public may feel that chemicals possessing magical properties are being added, and be ignorant of the fact that they only replace a small part of the essential nutrients originally removed from the self-same wheat in the milling process.

Although only a palliative measure,

the enrichment of bread with pure substances is a step in the right direction. Alternatives for achieving the same effect through the enrichment of bread with wheat germ have been discussed. Perhaps these alternatives are not so practical. Surely, if possible, they are in some respects superior.

However, even carefully controlled enrichment of any kind is at best an inadequate solution to the problem of poor nutrition for a large part of our population, especially in our country abounding with excess supplies of natural protective foods. If for technical reasons enrichment proves to be the only feasible solution at the present time, let us hope that it does not obscure our ultimate goal of a complete and adequate dietary for all of our people.

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WHAT THE DIETITIAN SHOULD KNOW ABOUT CLINICAL LABORATORY METHODS[1]

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THE dietitian's function varies from hospital to hospital. In some institutions she is considered merely an interpreter for the physician in converting his diet order into daily menus. In the more progressive institution the dietitian is a teacher and therapeutist as well as an interpreter. Perhaps the failure of the physician to utilize at times the full efficiency of the dietetic staff is due to the failure of the dietitian to learn the doctor's language as well as the failure of the physician to learn the dietitian's terminology. There must be a full understanding of each other's capabilities before there is a complete interdependence. When the medical staff learn just how much help they can get from the dietitian she will have the position she deserves in all hospitals.

My purpose here is to review some of the more recent aspects of the clinical laboratory data which the clinician finds so valuable in guiding his diagnostic and therapeutic efforts. In expressing definite results from any chemical reaction there must be a universally standard terminology acceptable and understandable to all. This terminology may change from time to time according to the change in interpretation and importance of various units. The gram system of measurement forms the basis of the system of recording biological chemical data. The quantity of most soluble elements in the circulating blood is so small that it is expressed in terms of milligrams, *i.e.* the normal concentration of sugar in the blood is 100 mg. per 100 cc. More recently the terms milliequivalents, millimols, and volume per cent are being used to designate the inorganic ions in terms of the chemical activity. A mol or molecular solution is one that contains the molecular weight of the substance in one liter of solution. Since biological fluids contain only a fraction of a mol, the term millimol, or one one-thousandth of a molecular solution, is used. Thus the millimols of a substance in the blood is calculated by dividing the milligrams contained, by the atomic weight of the element. A milliequivalent is the same as a millimol for all substances with a valence of 1, such as sodium and potassium. For calcium and magnesium, with valences of 2, a milliequivalent is double that of a millimol.

Table 1 shows the relationship between the various terminologies. Carbon dioxide, of course, since it is a gas, is expressed as volumes per cent. The most common laboratory procedures are the routine urine examinations and blood counts. Even such simple and universal procedures as these require interpretation in terms of accepted standards.

The specific gravity of the urine is recorded in terms of empirical units referable to the specific gravity of water, which is unity or 1.0000. Specific gravity is dependent upon the amount of dissolved substance in the urine and indicates the ability of the kidney to concentrate. A normal kidney can con-

[1] Read before the Session on Nutrition and Diet Therapy, American Dietetic Association, New York, October 23, 1940.

centrate urine over a wide range. A diseased kidney cannot alter the concentration of the urine more than 10 specific gravity units, generally from about 1008 to 1018. A urine with fixed concentration at about 1010 without albuminuria may indicate impaired renal function and the clinician usually orders a low protein diet. If, however, the albumin in the urine is over 3 plus and the volume over 1500 cc. a day, the patient is losing too much protein just as the diabetic wastes sugar. When the body wastes protein, edema will result. Hence, when albuminuria is marked as in the nephrotic syndrome, the clinician orders a high protein diet to make up for this waste.

The finding of sugar in the urine is generally reported in terms of plus signs, *i.e.* one, two, three or four plus. When a standard technique is followed these qualitative estimations are easily interpreted on a semiquantitative basis. When 5 cc. Benedict's qualitative solution is added to 5 cc. urine and the mixture shaken and put into boiling water for 4 minutes, the results may be interpreted as follows: one plus, less than .25 per cent glucose; two plus, .50 per cent glucose; three plus, 1 per cent glucose; and four plus, 2 per cent or over. In the event of a four plus reduction a quantitative examination should be carried out. There are certain substances in the urine which give copper reduction reactions other than glucose. These are maltose, pentose, lactose, fructose, glycuronic acid, alkaptone, formaldehyde (used as a preservative) and beta-oxybutyric acid. When the blood sugars do not correspond to the urine sugars, the possibility of these substances being present should be considered.

The knowledge of the blood count and its significance is also of great importance in ordering a diet for patients. The concentration of hemoglobin is conventionally recorded in terms of percentage and is a variable factor. The standard concentration of hemoglobin varies in different parts of the world. People living in high altitudes usually have 17 to 17.5 gm. in each 100 cc. In New York City the average is 15.5 gm. per 100 cc. Laboratory hemoglobin standards, therefore, must be standardized according to the locality in which they are to be used. If a Swiss standard were used in New York City, for instance, the inhabitants of the latter would run a maximum of 85 per cent. The red blood count, *i.e.*, the size, shape and number is also of interest to the dietitian. Normally, 4,500,000 to 5,000,000 red blood cells are present in each cubic millimeter.

TABLE 1

	MG. IN EACH 100 CC. SERUM	MILLIMOLS IN EACH LITER OF SERUM	MILLIEQUIVALENTS IN EACH LITER OF SERUM
Sodium	320 –350	139 –152	139 –152
Potassium	16 – 22	4.1– 5.6	4.1– 5.6
Chlorine	350 –390	99 –110	99 –110
Calcium	9.5– 11.5	2.2– 2.8	4.5– 5.5
Magnesium	2 – 3	.8– 1.3	1.6– 2.5
Carbon Dioxide vols. %	50 – 60	22 – 26	44 – 52

The terminology of the anemias today is quite different from that of 10 years ago when two general classes, primary or pernicious, and secondary anemias were recognized. Now that the etiological factors are more specific, the terminology is more elaborate. For our purposes we can say that the macrocytic should be differentiated from the microcytic anemias because of the two general types of treatment. In the macrocytic anemias the number of red blood cells depends upon the amount of hemoglobin; that is, since the cells are bigger than usual they contain relatively more hemoglobin. Hence the deficiency lies in the ability of the body to form cells. These anemias respond to extracts of liver, pig stomach and other similar preparations. The microcytic anemias, however, are characterized by an inability of the body to form enough hemoglobin to fill all the red cells properly, hence the cells are small and pale. Since hemoglobin is formed from iron and protein, it is imperative to give high iron and high protein diets in microcytic anemia, and in macrocytic anemias such specifics as liver.

Blood chemistry reports vary in different institutions because of the different methods employed. It is necessary, therefore, to know the normal range of variations found in each institution. Determination of the blood sugar concentration is a very common procedure. When the original Folin-Wu method is used, the normal values may be from 100 to 130 mg. per 100 cc. If the Somogi modification of the Schaefer-Hartman method is used, the normal values are from 70 to 90 mg. per 100 cc. blood. In spite of these variations, one can compile a chart of the average normal values of most of the constituents of the blood as shown here.

The values presented in the table are average for various methods and districts in the United States. When marked variations exist, disease states are present. For instance, if the urea nitrogen concentration in the blood rises above 15 mg. per 100 cc., repeated observations should be made to see if the concentration is increasing. If it is, a severe disturbance in kidney function is probably present. This finding must be correlated with the other diagnostic findings, however, before a diagnosis is made and laboratory data should be considered only as indicative or confirmatory. A positive diagnosis calls for clinical as well as laboratory findings.

Pathological variations in blood sugar concentration are seen on both sides of the normal. When the concentration is above normal levels, the diabetic syndrome should be suspected; when below, the hypoglycemic syndrome exists and further studies as to its origin (*i.e.* tumor of the islet cells of the pancreas, liver disease or others) must be carried out.

The significance of variations in the blood cholesterol content is not universally interpreted the same, since the blood cholesterol varies in disease of the liver, in malnutrition, hyperthyroidism, myxedema, diabetes, nephrosis, and even without known reasons.

Most of you, however, are familiar with these substances and their variations in the blood and urine. The assay of the vitamins in the human and their normal values is a newer field, and our knowledge here is not nearly so complete. Today there are tests available

for many of the vitamins, both chemical and functional.

Vitamin A, as you know, is related to dark adaptation in the eye. The visual purple of the retina is destroyed by bright light. To regenerate new visual purple ate visual purple, one has an indirect measure of the vitamin. This test, by means of the biophotometer, should be carried out by an experienced person using a standard technique if reliable results are to be obtained. Furthermore,

TABLE 2

Normal average values of constituents of blood

Non-protein Nitrogen	25 to 35 mg. per 100 cc.	High in impaired renal function, either primary or secondary, due to heart failure
Urea Nitrogen	8 to 14 mg. per 100 cc.	
Sugar (fasting)	90 to 120 mg. per 100 cc.	High in diabetes, certain liver conditions. Low in hypoglycemia
Sugar (1 hr. after meal)	120 to 150 mg. per 100 cc.	
Uric Acid	2.5 to 4.5 mg. per 100 cc.	High in gout and nephritis
Creatinine	1 to 2 mg. per 100 cc.	High in nephritis
Cholesterol (total)	150 to 210 mg. per 100 cc.	High in diabetes, nephrosis, biliary obstruction, pregnancy. Low in pernicious anemia, malnutrition
Calcium	9.5 to 11.5 mg. per 100 cc.	Low in tetany. High in hyperparathyroidism
Phosphate	2.5 to 4.0 mg. per 100 cc.	Low in rickets. Inverse to calcium
Phosphatase (Bodansky units)	2 to 5 B. U. per 100 cc.	High in hyperthyroidism, metastatic bone tumors, liver disease
Phosphatase (King-Armstrong units)	10 to 25 K. A. U.	
Total Proteins	6.5 to 8.5 gm. per 100 cc.	Low in nephritis with edema, and nephrosis
Icteric Index	1 to 4 units	High in jaundice
Red Test (Phenolsulfonphthalein)	30 minutes—30–40% excreted in the urine 60 minutes—50% excreted in the urine	
CO_2 Content	40–70 volumes %	
CO_2 Capacity	50–80 volumes %	
Red Blood Cells	4,400,000–5,000,000	
White Blood Cells	5000–10,000	
Hemoglobin	85–100%	

requires vitamin A or one of its precursors, the carotenes. The speed of the regeneration is dependent upon the amount of vitamin A present. Consequently, if one measures the speed of the ability of the eye to adapt itself to the dark, *i.e.* the speed of ability to regener- if the dark adaptation is low, vitamin A must be given and the readings checked in about four weeks. A return to normal indicates that the test is valid; if not, the interpretation must be questioned. Other methods for vitamin A determination are based upon color reactions of the

vitamins with definite chemical substances. These methods, at present, are not for general use.

The vitamin B complex comprises a group of about 14 substances: namely, thiamin, riboflavin, nicotinic acid, pyridoxin, pantothenic acid, B_3, B_4, B_5, the U factor, the W factor, and others. Clinical interest lies at present in thiamin, riboflavin, and nicotinic acid. Thiamin lends itself readily to chemical assay, and a clinical diagnosis of thiamin deficiency may be confirmed by chemical analysis of the blood and urine. Individuals who are well nourished with respect to thiamin will excrete about 100 gammas in the urine in 24 hours. If there is a deficiency, the excretion rate will drop below this level. My associates and I have worked out a test which we believe is conclusive in vitamin B_1 deficiencies, and which is based on the observation that an individual will excrete in the urine a certain percentage of injected thiamin. From preliminary observations it was found that 1 mg. thiamin hydrochloride injected intramuscularly was a suitable test dose. Over 450 patients and normal individuals were subjected to this test in order to get sufficient data for statistical analysis. It was found that people well nourished with respect to thiamin excreted over 150 micrograms in the urine in 4 hours after the injection. Those excreting less showed manifestations of vitamin B_1 deficiencies. This procedure is, of course, too new to be in general use as yet. But at least it gives an indication of the progress in this field.

Vitamin C assays are now being done routinely all over the country on both blood and urine by means of titration with a colored indicator, phenolindophenol. The reaction is based upon the fact that ascorbic acid decolorizes the indophenol. The amount of urine or blood required to decolorize a known amount of this dyestuff can be readily interpreted in terms of milligrams of ascorbic acid. Titration of the blood plasma today is probably the best and quickest method of assay. If the plasma contains over 0.7 mg. per 100 cc., the individual has an adequate amount of vitamin C. Scurvy is present when the amount falls below 0.25 mg. The in-between levels indicate borderline or subclinical deficiencies. One function of vitamin C is to maintain the integrity of the capillary blood vessels. When vitamin C is absent or deficient, the capillary walls become very fragile. Hence a measure of capillary fragility becomes a measure of vitamin C and is the basis for the tourniquet test.

Vitamin K assays are of extreme clinical importance. With this vitamin, as with the dark adaptation test for vitamin A and the capillary fragility test for vitamin C, the assay work is based upon the function of the vitamin rather than a direct chemical analysis. Vitamin K helps control blood-clotting and prothrombin is one of the substances required for the formation of blood clot. Vitamin K is dependent upon the presence of prothrombin. Consequently, a measure of the prothrombin indirectly gives a measure of vitamin K.

Basal metabolic tests are a very common procedure. The metabolic rate is reported in terms of percentage variations from the average for sex, age, height and weight. The conventional standards allow for a 10 per cent variation above or below the average normal,

i.e. plus or minus 10 per cent. It must be remembered, especially in using reducing diets, that the total caloric needs keep decreasing with advancing age. This, of course, is not reflected in the expression of the basal metabolic rate. An individual may have a metabolic rate of plus 5 at the age of 20 with a total caloric consumption of 2200 calories. The same individual at the age of 40 may have a basal metabolic rate of plus 5 and the total caloric consumption may now be only 1700 calories. A short, squat person with a small surface area may have a perfectly normal metabolic rate yet burn only 1100 calories a day. Insist, therefore, upon a report of the total caloric consumption as well as the metabolic rate. Obviously, a 1200-calorie diet will not reduce the weight of an individual who burns only 1100 calories a day.

TRAINING COOKS

The course for cooks given by Mr. Scheibe is divided explicitly into theoretical instruction and practical cookery lessons.

The list of subjects for the theoretical instruction is: History of cookery; menus; fundamentals—boiling, roasting, broiling, frying, stewing, baking, and blanching; some dietetics—calories, vitamins, normal diets, and children's diets; elementary methods and rules—flavoring, seasoning, measuring, and timing; kitchen equipment and utensils—ranges, broilers, spits, steam kettles, pressure boilers, pots, pans, crockery, cook's uniform, refrigerators, and kitchen utensils.

The practical cookery lessons consist of the following: Advance preparation of vegetables, fish and shellfish, meats, and poultry; preparation of soups, sauces, stews, roasts, fish, desserts, pies, puddings, and salads, baking of rolls and hot breads, preparing cold dishes, and sandwiches. It is to be noted that ice creams and loaf breads are not made on the cars.

Likewise for the training of attendants or waiters there is a division into theoretical instruction and practical instruction. The former covers personal appearance, lectures on keeping of table linen, table silver, chinaware and glassware, and menus. The practical instruction includes: Seating of passengers; table setting—table d'hote, a la carte, and festive; service—Russian, French, hors d'oeuvres, chafing dishes, casseroles, beverages, cold buffet, and wines; preparation and service of mixed drinks, carving, clearing of table, sideboard work, waiter's implements, food preparation at table, and table condiments.

. . . "It takes two years to train a cook properly," say Mr. Armfield and Mr. Scheibe. They add that cooks continue to increase their knowledge and efficiency from year to year, in many cases for ten or fifteen years, or even longer.

They estimate that their cost per man for training a cook runs from $500 to $700. The cost for training an attendant or waiter is naturally much lower—ranging from $200 to $300.

This $500 to $700 for cook's training is the money expended on the average for teaching and food demonstrations. It includes the cost of food spoiled in routine work by the cook receiving training. It is over and above his pay during his apprenticeship, in which he works up the line as a "fourth cook," "third cook," and "second cook" before he becomes a "first cook," that is, an A Number 1 cook.—*Meals on wheels, Pullman style, The Hotel Monthly, February, 1941.*

THE APPLICANT AND THE JOB[1]

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THE problem of getting a job calls for competence and a well thought out plan of approach. The successful applicant must know clearly what his special abilities are and develop them to the full. Your success in any job depends, too, fully as much on whether the job fits you as on your fitting the job. Some people always seem to get ahead, not necessarily because of some unusual distinction, but because they believe in themselves and doggedly stick to what Esther E. Brooke[2] calls the three fundamentals of success: vision, conviction, and courage.

May I relate my own experience as an illustration. I graduated in home economics from Montana State College and took the first position open—teaching. Subsequently, I went into extension work. Soon an opportunity arose to take a similar position in Minneapolis. To go to and from work I had to pass the vast flour mills and the thought occurred to me: why don't these flour companies send representatives to 4-H Girls Clubs to demonstrate the making of good bread, and at the same time sell their product? I discussed the idea with a reporter on one of the leading newspapers who insisted that I outline my plan and submit it to one of the milling companies. Accordingly I called on the Gold Medal Flour Company on a Monday and the following Wednesday I had the job!

I had simply applied Mrs. Brooke's formula which interpreted means that with vision you are wide awake to opportunities; if you possess conviction you have faith in yourself and in your decisions; and the gift of courage means that you're there to stick until you reach your goal.

Those of you who have elected to spend four years in college studying home economics may be looking for a position or wondering if you are in the right one. In any event pick the job that is cut out for you; one which will accent your assets and minimize your liabilities. Mrs. Brooke, through a series of interesting and easy-to-answer questionnaires, shows how you can capitalize on your assets and determine the career best suited to your abilities, whether you are faced with the problem of choosing your first job or the need of changing your present job. Some of these tests for personality, covering a list of twenty-five questions, may make you smile but there is one important thing these questionnaires are designed to do for you: they help you to view yourself objectively.

Next, you must measure your intellect before you choose your career. If you are buying a new dress you insist that the dress fit. Do you use the same common sense in selecting your job? Too many of those who come into my office looking for a job appear to have given it no more thought than, "Guess I'll go to Lever Brothers; they may have something." First, what are your grades in

[1] Presented at the New England Refresher Course sponsored by the Massachusetts Dietetic Association, Boston, May 13–19, 1940.

[2] Esther E. Brooke, Career Clinic. New York: Farrar & Rinehart, 1940.

school? For every applicant we consider, we get complete personal data from her college and we study this carefully. With intelligence and training you can tackle any job you wish. But whether your mind is fair, good, or superior, let your intellect play its proper role in choosing your job.

Intelligence tests give you a better understanding of your mental equipment. Many firms never hire employees before they see the results of such a test. I have often thought that a test more in line with the position would be helpful. For example, I have yet to find an applicant who can write a good recipe without further training. Yet they all have had college training in foods! For those whose rating is average in such tests, large organizations are a haven since they offer security, permanence, and routine promotion. If you seek a position in a large organization, see that it is suited to your personality, your mental equipment, and the other general characteristics we have mentioned. If your rating is above average, choose a job that will always be a challenge.

What do you like to do? Give this question serious thought because the thing you like to do is probably the thing you can do best. In interviewing applicants for positions in our Home Economics Department, especially those just out of college, I often ask, "Why did you elect to study home economics?" Sometimes they are a little startled by this question and you might be surprised at the answers. One replied, "My best friend was taking the course." Another said, "I have two sisters. One is a teacher; the other a nurse. The family decided I should take home economics." Neither of these young women was in the profession because she wanted to be.

If you are not happy in your work, or if you are constantly having to look for a new job, do not be too concerned. Consider doing something else even though it may be entirely different. I know a home economist who was considered unusually successful in her job which she had held for a number of years. Suddenly she found herself out of the company because of new management. For a year or more she looked in vain for a similar position with a comparable salary. Then she turned to a new field, selling real estate, which after all is not such a far cry from home economics since it helps people to find homes and home economics teaches how to live in them successfully.

Why do so many individuals in the process of choosing their careers skip blithely over their physical fitness? It is like expecting to win an automobile race without peeking under the hood or checking the tires. Almost any job in our field makes heavy demands on health and endurance. Personal appearance, too, comes under the head of physical equipment. But don't let your physical limitations cheat you out of success. You should simply be aware of them and be guided thereby.

Temperament, next to ability, is probably the most important factor in determining your job. Whether introvert or extrovert, choose the environment that is keyed to your pitch. There is no such thing as a dull job. Jobs seem dull only when performed by the wrong person. To the right person in the right job, the hours never lag. If they do,

find out what is wrong. The quiet, reflective type of person who lives pretty much within himself, is more interested in working with an idea than with people. For such, research, writing, catering or an assistantship to a manager or director seems more suitable. Those who like to deal with people, who like to organize and promote, tend to be more aggressive and should choose their job accordingly. Too often people are afraid to look beyond the home locale in their search for a position.

There are many fields open to people with home economics training and few realize what a tremendous range there is from which to choose. After you have narrowed your choice down to one or two jobs, be guided by the mental and physical requirements, the training and experience and the special aptitudes required. Then consider the possible salaries, the vacations, hours, retirement pensions, and job security. Other considerations are the conditions under which you would work, the opportunities, current trends and economic factors. Is the field overcrowded, is the job reasonably depression-proof and we might add, war-proof? Is the organization reputable and what is its system of advancement?

Answers to these questions may be sought from well-informed people, or ask your librarian for an "Occupational Index" which itemizes the most recent books and articles on jobs of all kinds. Note the material about the job that interests you and consult your librarian for suggested reading matter. Or you might consider a vocational counselor. A little headwork directed toward finding the right job is certainly better than a lot of footwork as the result of a poorly placed one.

Once you have determined your vocation, there are a number of ways of unearthing the job, such as personal introduction, a canvass, answering advertisements, advertising in your own behalf, and through employment agencies. We are told that it isn't what you know, it's whom you know, that counts. This can very seriously be taken into account when looking for certain kinds of jobs. Your first approach might therefore be the direct approach, by personal recommendation, or what is popularly known as "pull". If you use this approach, go about it in an orderly, systematic manner. Make a list of all those who are in a position to help you: friends, relatives, business acquaintances, fellow club members, and former employers. Then revise your list and decide what assistance could be expected from each person, whether letter of introduction, recommendation or advice as to the position in mind or possible openings. But make up your mind what you want before you ask for assistance. Generally it is true that if we have two applicants of equal ability, the one who has been recommended by someone we know will be given precedence.

Those eager to find a job cannot afford to overlook the employment agencies who enjoy a wealth of contacts which others are not likely to have. Many companies and organizations depend entirely upon such agencies for employees. Agencies, too, are an excellent barometer of business conditions—they know whether a field is overcrowded—and the same usually applies to college and other placement bureaus. If you know how

to write an arresting, convincing advertisement or can get such assistance, you might advertise, using the proper medium. "Cold canvass" is one more way of unearthing a job, if you keep your eyes open for announcements on financial pages of newspapers with regard to new companies or those undergoing a change in personnel and management. You might read the trade papers or consult the business directory of your city which provides names and addresses of executives, or scan trade directories. A good letter of application, however, will often prove to be the only password that will let you in. Above all, get the correct name of the person to whom you are addressing your letter and be sure he is still with the company.

Success in anything takes plenty of preparation and the assurance that goes with it. If someone wants to sell you something he is not likely to walk into your office and say, "I want to sell you something, what do you want?" Too many young people just out of college blunder into an office for an interview with a "what-can-you-use-me-for?" air, and then they wonder why no one ever seems to have a job for them when there is so much they can do. If you don't know what you want to do, how can you expect someone who never saw you before to figure it out?

So fortify yourself with every scrap of data that you can pick up about your prospective employer and his business. It isn't difficult to talk in terms of his wants and problems when you know what they are. And if you can, you loom high above all contenders. People judge you by how you look, what you say, and how you say it. Good appearance means more than clothes. It means careful grooming, erect carriage, a quick and energetic step, bright eyes, and a responsive smile. It means good taste and judgment and a sense of fitness that makes last year's outfit as becoming and appropriate as the day you bought it. Your voice is one of your best assets, so cultivate one that is pleasing and well modulated. You need self-confidence and optimism, but you can overdo it. I shall never forget one interview I had in which I outlined everything I could do on the job. The executive to whom I was talking finally said, "So it's my job you are after!"

An interview may last only five or ten minutes, but preparation for it may take hours and weeks. An appointment should be made by telephone or letter, preferably by letter. Any smart executive is willing to give a few minutes of his time if you have something worth while to offer, and a letter receives more thought and consideration than a telephone call which often is an annoying interruption.

When the interview is granted, don't begin by saying negatively, "You don't want an assistant, do you?" Prepare your opening sentence so that it gets a "yes" response immediately and don't overwhelm your interviewer with your past experience. Don't talk too much, and above all, don't knock your former employers. Answer questions frankly, honestly, and fully, and when it's your turn, don't hesitate to ask intelligent questions, for you are judged by your questions as well as your answers. If the discussion reaches the salary stage, you will be wise to make your demands

neither too high nor too low, but never make the mistake of saying, "I *need* so much a week." Your exit is as important as your entrance and do try to realize when the interview is over and dismiss yourself with a smiling good-bye.

You may follow up your interview the next day or so with a courteous letter which is a subtle way of making a further and a lasting impression. If you get a job, drop a note to all other people who have interviewed you, and also to those who were instrumental in helping you get your job, explaining that you have accepted a position and thanking them for any assistance. It is just common sense to keep open as many doors as you can.

Coordinating a National Nutrition Policy

Developing a national nutrition policy for the United States is not a simple task. It involves a delicate balance of the interests of producers, distributors and consumers; of farmers and urban workers. Labor, whether agricultural labor, factory labor, labor in mines, on trains, or on waterfronts has a great stake in a nutrition program, because good nutrition is fundamental to good health, and the cooperation of healthy workers is fundamental to the development of any important national policy. This problem is one that involves individual action and social action, and I believe that we may look forward with confidence to finding its solution on a democratic basis.—*From an address by Secretary of Labor Frances Perkins before the National Nutrition Conference, Washington, D. C., May 27, 1941.*

Good Nutrition Pays

There are some dramatic and convincing anecdotes along the line of nutrition in action. There are little stories of people who would ordinarily be concealed in case reports or statistics. There are little dramas of individual lives. Some tell the story of hollow hungers, some of hidden hungers. There are stories of increased industrial efficiency. There are demonstrations of the supreme importance of nutrition in the mastery of arms and the destiny of nations. In nontechnical terms they indicate to a layman that good nutrition pays.—*From an address by Paul V. McNutt before the National Nutrition Conference, Washington, D. C., May 26, 1941.*

FOOD FACTS AND FADS[1]

HELEN S. MITCHELL

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AS A topic of conversation there is none better than food, unless, perchance, it's diet. Everyone is on a "diet", normal or otherwise, for the word diet does not necessarily mean something unusual, restricted or distasteful. Too often it seems to have that meaning for we hear people say, "Oh I just can't stick to a diet!" Obviously, in that case, they mean a restricted diet. Human nature being what it is, if you like food you do not enjoy being told not to eat the things you like best. And of course we who are inclined to be overweight usually like fattening foods while our thin friends invariably choose green salads and sherbets which should be the choice of the overweight.

Diets are so popular as a topic of conversation that an enterprising hostess could invite her friends to a luncheon and ask each to bring her diet with her. What an array they might see! One with only raw fruits and vegetables, one with special crackers and vegetable juices, one with a lamb chop and pineapple, one with the foods which are said to "harmonize" with protein, and one with nothing because she eats but two meals a day. How much fact and how much fad would be represented in this array?

[1] Read before an open meeting of the American Dietetic Association, New York, October 22, 1940.

Editor's note: This and the paper immediately following are published as excellent examples of the popular approach in writing for or addressing the public.

There might be nothing intrinsically harmful in any single food included in the list, but neither is there any magic in raw foods, vegetable juices or special combinations. Limitations as to quantity of calories, cellulose, sugar or fat, or increased intake of certain vitamins, protein or iron may be sound dietetic advice, necessary to control or hasten recovery from certain diseases. But diet therapy in specific diseases is too big to discuss here. Like medicine, restricted diets and dietary supplements should be prescribed by a reliable physician assisted by the dietitian.

There are a variety of "diets" or dietary fads which never originated with reputable physicians or dietitians. Some are harmless but extreme. For instance, the virtues of an exclusively "raw food" diet are expounded by some. These addicts would have no use for a stove, they just crunch raw vegetables, fruits and nuts, and perhaps drink a little milk. They may be able to survive and prosper, but why do it? Cooking adds variety in flavor and texture, and makes many foods edible which could not be used raw. To be sure, some raw fruits or vegetables in our daily menus are to be recommended as a source of vitamin C, which is easily destroyed by cooking, but that does not mean that we must eat *all* of our foods raw. In fact, some digestive tracts would be unable to cope with large masses of raw cellulose.

So-called "natural" foods are quite apt to be recommended along with "raw" foods, such as raw sugar in place

of refined, sea salt for table salt, olive oil for other fat, lemon juice for vinegar. If you have the price, there can be no particular objection, but neither is there anything poisonous or harmful in the foods for which they are substituted. Certain vegetable juices have been accredited with more virtues than they actually possess. An increased consumption of vegetables, to be sure, is advised by nutritionists, but what possible foundation can there be for specific claims such as: celery juice for indigestion and rheumatism, carrot juice for the complexion, parsley juice as a building tonic, garlic juice for high blood pressure, cabbage juice for the kidneys, white radish and lemon juice for the gall-bladder?

Special dietary combinations are "prescribed" in certain systems of eating. He who dares to indulge in protein and starches or perhaps starches and acid fruits at the same meal faces dire consequences, we are told. But there is no physiologic basis for the notion that the human digestive apparatus is not equipped to deal with all types of food, whether eaten individually or together. Most natural foods have protein and starch and other factors present. We eat combinations whether we will or no—even the diet faddists cannot avoid doing so, but they neglect to tell their patients about that point.

These futile efforts to improve physical well-being by pseudo-scientific dietary régimes reflect an interest and a striving for something better in terms of health. Such a nutrition-conscious public is just as fertile a field for constructive scientific education as it is for the food faddist and patent medicine quack. We spend $500,000,000 annually for patent medicines—how much more for fake diet cures? It is easy to listen to radio advertisements, to read health literature, to follow the suggestions of friends and neighbors, and to be gulled by plausible and psuedo-scientific ideas instead of asking advice from medical or nutrition authorities. Some food fads in themselves may be relatively harmless, but when they lead to delay in seeking necessary medical advice they can be dangerous indeed. In any event, food fads may unduly increase food costs or may lead you to neglect foods you really need.

We nutritionists have been prone to condemn this interest in dietary and food fads. Now, I say, let's divert this interest into profitable and beneficial channels, not stifle it. Together we should see to it that public libraries have up-to-date books on food and nutrition. Classes and lectures by physicians and dietitians may be planned by community groups. We need interesting and popular interpretation of scientific facts for lay groups. Perhaps we nutritionists have failed to give the layman what he wants. As a result he listens to quack health lecturers who offer him an outlet for his interests and inclination to "do something about it".

Promoters of most of the fad diet systems or health institutes have personality, poise, and persuasion. They are convincing speakers with a smattering of scientific knowledge which lends an air of plausibility to their discourse. They mix the true and the false or misleading to suit their needs, to sell their products or to scare their victims into spending money for a course of lectures to cure them of imaginary ills. They

use scientific words and phrases to cover false ideas. They accomplish most by personal appearances but they also work through mail, radio, newspaper, handbills and news-stand publications. They go so far as to threaten scientific authorities who dare to criticize them openly. Two such letters reposed in my "pending" file for several months until it was learned the writer who had threatened me and the college had been put out of business and his laboratory closed. That was in connection with the "vitamin F in cosmetics" hoax which was at its zenith some two or three years ago.

Earmarks of quackery and misleading propaganda should be familar to the layman. Extravagant claims for cure or relief of various complaints are always to be doubted. Vague labeling which offers no figures or exact information to live up to is one way by which these promoters have avoided the teeth of the law. Labels are never so extravagant as detached advertisements or literature because the laws are stricter about labels. An unwillingness to show you their product until they receive your money should make you skeptical immediately.

Commercial advertising of staple food products falls into quite a different category. Specific claims as to the therapeutic virtues of products are avoided. More often, statements expound the "health and vitality" idea.

Candy, honey, and other sweet foods claim to provide cheap, quick energy. These advertisements are frequently addressed to young people who have but a few nickels to spend for their lunch and want the most for their money. Some time ago there was one candy bar which bore the following legend on the label—every word of it true, but what a false impression it would make on a hungry school-boy or girl: "Vitamin Energy Bar" (5 cents) equivalent to

3	loaves of bread	in	fat
1	lb. butter	in	protein
2½	lb. cheese	in	carbohydrate
2	bunches celery	in	calories
2	oranges	in	calcium
1	egg	in	phosphorus
4	qt. milk	in	iron

Obviously such statements are misleading and tend to exaggerate the nutritional value of the candy.

One wheat cereal advertisement expounds the "ten vital elements" by which they mean ten amino-acids. These are present in most natural proteins in varying proportions; cereals are no exception. Cereals, in general, contain proteins which are inferior in quality to meat, milk, and egg proteins, but they are valuable sources of protein in the diet when supplemented by animal proteins. Thus, whole grain cereal and milk is an excellent combination but no one brand of such cereal supplies essentially better protein than another.

VITAMIN CONCENTRATES

There is always the danger that new scientific discoveries will be exploited by enthusiasts until they bear the earmarks of fads. That is what seems to be happening to vitamin concentrates and vitamin reinforcement of foods. The scientific advances in the past few years have been astounding, and therapeutic results from the use of massive doses of certain vitamins have been spectacular. There is much to be learned, however, about vitamins and their rightful place in the treatment of diseases. It is well

to be open-minded but not too gullible on the subject of vitamin therapy.

The enthusiasm with which people buy and take all types of vitamin concentrates regardless of what ails them and regardless of the natural vitamins present in their daily diets gives a faddy complexion to the picture. Vitamins from the grocer are usually cheaper than from the druggist, and they come in Nature's packages done up with other valuable food constituents instead of alone and labeled in units. But when dietary restrictions make it difficult or impossible to obtain enough of certain vitamins in natural foods, vitamin concentrates have a rightful place. They are put up by several reputable pharmaceutical houses and labeled according to the amount of each vitamin in milligrams, micrograms, or international units per tablet or teaspoon. Perhaps these figures may mean very little to you, but at least they should give you confidence in a product whose manufacturer isn't afraid to state the potency on the label. The law makes the manufacturer live up to these figures. You can ask advice as to the meaning of this information and as to the best product for your specific needs.

The reinforcement of foods with vitamins, either in an effort to restore those lost in processing or to add when not originally present, is a problem. Is it necessary or advisable to do this? Can manufacturers afford to do this without increasing the cost to the consumer? How much of each vitamin and which ones should be added? What regulations should be imposed, if any? These and many more questions have been discussed at hearings of the Food and Drug Administration recently. Based upon their recommendations, the enrichment of certain staple foods such as flour and bread has become a reality.[2] The necessity of some such provision is recognized as the only device for getting a sufficient supply of certain essential elements into the average American diet. This type of procedure, initiated by industrial interests and scientific authorities and controlled by standards mutually agreed upon, is commendable and should be accepted for the present as a necessary expedient.

Your interests are safeguarded by such agencies as the United States Food and Drug Administration, Federal Trade Commission, United States postal authorities, Better Business Bureaus, state and national health associations, and the American Medical Association through its Bureau of Investigation and Council on Foods and Nutrition. But there are ways of evading any law or regulation. There will always be quacks and promoters who want to sell something. There will always be enthusiasts who want you to try their suggestions. Your best protection, after all, is education in the simple principles of nutrition and intelligent skepticism regarding extravagant new theories. Money spent for better food—more of the protective foods—will go further to promote better health for America than the same amount of money now being spent for pseudo-health and diet fads.

[2] For copies of the folder, "20 Questions on Enriched Flour and Bread" write to the Federal Security Agency, Washington, D. C.

SAFE AND SANE REDUCING DIETS[1]

IDA JEAN KAIN

King Features Syndicate Inc., New York

FADDY reducing diets are on the wane—thanks to the dietitians. But there is still much to be done. The modern science of nutrition has made reducing safe, it has shown us how to balance a low-calorie diet so that it will not only be safe but will actually improve health while reducing weight one or more pounds per week. Thus reducing, which used to have a bad reputation, is now accepted in the best circles. The beauticians, at the same time, have made its practice a gilt-edged business. But the deluxe salons on Fifth Avenue haven't contributed a thing to "slimming" but salesmanship. Their brand of diets isn't as good as their glamour!

In this popular cult of slimming, the main objective is to reduce, whereas the purpose of reducing, from a dietitian's standpoint, is to improve health. The beautician's emphasis is on a low-calorie diet, whereas ours is on supplying every essential but calories in generous amounts.

Beauty is now big business, and slimming is no small part of it. What the pay-check for this gilt-edging is, I do not know, but as they say on Broadway, "It ain't hay", for all the leading beauticians wear mink coats! I may be biased, but I think it's the dietitians, instead, who should be living on the fat of the land.

Anyone who offers diets to the public should have a thorough knowledge of dietetics. We can't do much about that, however, or at least we don't, but we can and we must educate the public in regard to the scientific facts. It's up to the members of our profession to see that the general public are so well informed that they will not follow poor diets, and certainly not pay money for them. We dietitians are inclined to be a bit smug about our knowledge. We look at a diet that isn't all it should be and say to each other, "Why, this hasn't enough protein, there isn't any calcium, and where does the vitamin A come from?" Well, a lot of good that does! Dietitians must not only know, they must tell the public what they know.

When I first started my career of streamlining women, I though it my duty to state the ungilded facts, to show women that reducing isn't a mystery, that it is simply a problem in mathematics—low calories plus common sense applied in eating. But I have changed my mind long since. We have to be better psychologists than that. Women want that touch of mystery which to them spells glamour. I have learned enough of feminine psychology to know that the only way to lure a woman to a sensible diet is to play up the dramatic results. If you will do that, you can convince any woman that sensible dieting is a privilege.

There is certainly enough that is dramatic, even about a staid, scientific diet, to electrify the average overweight. The true facts are much more sensational than any faddy ideas. Take the high protein trend, for instance. A great many reducing diets contain 80 to 100

[1] Read before an open meeting of the American Dietetic Association, New York, October 22, 1940.

gm. protein, and some are as high as 2 gm. per kilo of ideal body weight. A moderately high protein diet has a distinct advantage over a low protein diet for reducing purposes. Rony, in his excellent book, *Obesity and Leanness*, lists these several advantages:

First, the high specific dynamic effect of protein, which increases the calorie output. Instead of warning what will happen if a person fails to obtain adequate protein in a reducing menu, play up the specific dynamic action of protein. Women will like the idea of being able to eat more and burn up the fat faster.

Second, high protein meals usually give a feeling of satiety quicker and to a greater degree than low protein meals. And since reducing is three-fourths will power and one-fourth diet and exercise, satiety is important. Third, the high protein diet helps to prevent water retention; high protein also permits severe restriction of the carbohydrates in the diet without loss of body protein or ketosis. This last is of particular advantage in obese cases with chronic hypoglycemia, since the high protein intake provides a source of glucose, approximately 50 per cent being transformed into glucose at a slow rate and over a prolonged period of time. Rony lists four dietary factors which have a bearing on water retention: high protein, low salt, low sodium-potassium ratio, and adequate vitamin B. The low sodium-potassium ratio is effected by choosing vegetables and fruits with maximal potassium and minimal sodium content, and using potassium chloride in cooking and as a condiment in place of table salt.

With regard to fasting, about the best argument I know of against this practice in taking off weight is to point out that the "fastee" wouldn't lose as fast as he would if he ate something. In starvation there is always an appreciable decline in basal metabolism, 30 per cent or more, which of course greatly decreases the total caloric output.[2] Now on certain low-calorie diets the basal metabolism may fall only a little, so in spite of taking some food the caloric deficit may be as great, perhaps greater, than in complete starvation. If you explain this no one will feel like fasting when they know they can reduce just as quickly by eating.

The public used to be interested mainly in immediate results. All they asked of a diet was that it reduce. Now they want scientific facts and the one fact we should emphasize is that the body does *not* get along on fewer calories when we eat a low-calorie diet. Instead, the additional energy required is derived from the stored body fat. A person who is thirty pounds overweight has stored an excess of 120,000 calories in body fat which can be drawn on for energy. But while this fat represents stored energy, it does not represent an effective reserve of the protective elements: protein, vitamins, minerals and water. *These substances must be supplied every day.* The limitation, therefore, must be in calories only; each dietary essential must be adequately supplied.

VITAMINS AND BEAUTY

The beauticians and the vitamin vendors have "sold" women on vitamins from a beauty angle. We know it's being overdone. But there is a happy medium in this beauty diet business.

[2] Rony, H. R.: Obesity and Leanness, p. 244. Philadelphia: Lea & Febiger, 1940.

For example, when you point out to a reducer that a low-calorie diet necessarily must be low in fats and therefore is apt to be low in vitamin A, you will be more likely to persuade her to obtain adequate vitamin A in her diet from sources other than fat if you use the beauty approach rather than the health emphasis. You can explain about night blindness and the regeneration of visual purple in the retina of the eye until you are purple in the face. Your pupil become really interested only when she hears that a lack of vitamin A in her reducing diet may cause her fingernails to become brittle and break,[3] her skin to become dry and her hair likewise dry and perhaps brittle.

As far as the vitamins go, the main ones to stress with the reducer are vitamins A and B_1. They usually get enough C through the fruits and vegetables, and enough G in meat, milk and eggs. Sherman advises that half the cereals in the average diet should be in the form of whole grain products, and since the reducer's diet is restricted in bread and cereals, all such in the diet should be in the form of whole grain products. When it can be afforded the addition of appropriate vitamin concentrates keeps the reducer's vitamin intake at optimal level and allows for a wider variety of foods of choice. A thousand-calorie diet, as you know, can be so planned as to furnish vitamins in barely adequate but not optimal amounts.

Perhaps the most important role of the dietitian is to undo the harm done by the self-styled "food experts", who know much that isn't so about nutrition. Apparently the more ridiculous the statement, the more readily the public seizes upon it. Not long ago I went to hear one of these "experts". First he announced that he was not a doctor (it seems the American Medical Association had been investigating the situation[4]) but that he was a dietitian and a nutritionist, and that he knew all there was to know about food! He proceeded to inveigle the audience with regard to the value of garlic, potassium broth and beet juice, for any and all ailments, and added that those interested in reducing would be surprised to learn that "starch is twice as fattening at night as in the morning." The audience was duly impressed, in fact everybody gasped. I gasped, too!

Dietitians in commercial work who meet the public have done a stupendous job educating people in regard to sensible diets and combating these ridiculous assertions. They have helped to make food advertising of real value. It would be in the interest of the nation's health if all firms selling products that have anything to do with diet were compelled to have a dietitian on their staffs. Apparently not all of them have. One much advertised reducing food whose principal ingredient is a few cents worth of soy bean flour, sells for a dollar. The public is urged to take a teaspoon in place of breakfast and a teaspoon in lieu of lunch. People write in to ask if that will reduce them! I explain that you could take practically anything in place of two meals a day and reduce—you could take an apple, for instance, but even this wouldn't necessarily keep the doctor away! I receive many letters asking about grape juice. I wish all of you would pass the word along that

[3] Ibid., p. 253.

[4] *Editor's note: See* J. A. M. A. 108: 1359, April 17, 1937.

grape juice contains as many calories as whole milk, ounce for ounce, Irene Rich to the contrary!

The dietitian should be a good advertisement herself if she wishes to teach sensible, balanced diets to the public. She should be of normal weight, have a good figure, a superb posture and a healthy skin. She should look the part that has been assigned to her. Dr. Joslyn does say, however, that a dietitian should be allowed 10 per cent above normal weight since some people might be afraid of a streamlined dietitian. But he believes 10 per cent is the limit and of course structure must be taken into account. If we depend upon standard weight charts, it is difficult to determine what "normal" weight is since charts list merely average figures. There should be at least three sets of averages, one for the slight frame, one for the medium and a third for the stocky frame. One way in which individual structure can be taken into account is to allow 100, 105 or 110 pounds for the first five feet of height, then add five pounds for each extra inch. For the exceptionally large frame we might allow an additional 10 per cent above 110 pounds, plus 5 pounds for each extra inch.

A good way to refute the well-worn argument that some are born to be fat and others to be thin is to explain that while some people actually require more food than others, nevertheless all excess fat originates as excess food. A short stocky person will more easily understand why he must avoid high calorie foods if it is explained that a tall thin person actually requires and uses more food than a shorter, fatter person of the same weight. The less surface area in proportion to total weight, the fewer calories required per pound of body weight. And when fat "runs in families", usually fattening food habits will be found to exist as well.

I cannot dismiss the subject of "gilt-edged slimming" without mentioning the "easy ways" of "slimming". Sweat baths, cabinet baths, hot blankets, wax baths, and all the many methods based on sweating are a snare and a delusion. The client, to be sure, loses water and money, but not fat. Water is drawn from the system and the scales go down, but as soon as the water balance is restored the scales tell the same old story. Then there are the various rubbing creams. Some are based on the sweating principle, others on checking the perspiration to speed up metabolism and raise body heat to burn fat. Such procedures are a strain upon the system and are not recommended by the medical profession. Then there's massage which may be valuable in the stimulation of circulation and skin tone and in preventing flabbiness; unabetted by diet, however, massage is not a dependable reducing agent.

In the final analysis, diet is the only way to control weight. It is important that we teach people the essentials of a balanced reducing diet. By educating the overweight woman to build her reducing menu around the protective foods —milk, eggs, cheese, fruits, vegetables, lean meat, whole grain bread and a restricted amount of butter—and to use this same list of foods as a basis for planning the family menus, we will not only help her to control her weight but we will thereby improve the food habits of the nation.

EDITORIAL

THIS QUESTION OF VITAMIN TOXICITY

Evidence in favor of any toxic effect from the synthetic vitamins is extremely meagre. It is true that both animal and human studies have shown that occasionally, in the presence of multiple deficiencies, treatment of the outstanding or primary deficiency with a pure synthetic vitamin causes accentuation of symptoms scarcely noticeable before. This is due to the fact that the underlying or secondary deficiencies[1] still untreated continue to progress at the usual rate and appear in much sharper relief. The secondary deficiency symptoms were formerly obscured by the more pronounced primary ones until treatment and consequent removal of these. This phenomenon has been falsely attributed to a toxic effect of the vitamin administered.

An analogous case may be found in the treatment of a bacterial infection with some specific chemotherapeutic agent. Here again we may see the treated symptoms disappear only to be replaced by others, sometimes even more alarming than the first. In this case, however, we do not suspect a toxic effect from the therapeutic agent, we simply look for another cause which is usually to be found in a "secondary invader". Why, then, do we not apply the same logic to a similar vitamin anomaly?

Most reports in the recent literature dealing with ill effects from the synthetic vitamins have been concerned with the vitamin B complex[2, 3]. In these particular cases one synthetic factor was fed without adequate provision for other deficient factors. On the other hand, it has been observed that rats on a B-complex-free diet supplemented with vitamins B_1, B_2 (riboflavin), B_6, pantothenic acid, nicotinic acid and choline, grow at an almost normal rate and are able to maintain themselves in health through two generations[4]. This is strong evidence against the intrinsic toxicity of any of these factors.

Two problems confront us in the use of the synthetic vitamins: namely, their function in supplying the average normal individual with his basic requirements and in treating an individual having a specific vitamin deficiency. The two problems are quite different. The one requiring only small daily amounts involves little risk of precipitating a vitamin imbalance while the second, often requiring large amounts of the vitamin, runs a greater risk of a resulting imbalance. The "usual diet balanced in its inadequacies" is preferable, according to Morgan, to the state of imbalance produced by feeding large amounts of a single vitamin[2].

There are instances where the use of synthetic vitamins is not only helpful but in some cases imperative. In the case of vitamin B_1, although it is not impossi-

[1] Smith, S. G.: The importance of recognizing secondary vitamin deficiencies. Am. J. Trop. Med. 20: 593, 1940.

[2] Morgan, A. F.: The effect of imbalance in the "filtrate fraction" of the vitamin B-complex in dogs. Science 93: 261, 1941.

[3] Mills, C. A.: Thiamin overdosage and toxicity. J. A. M. A. 116: 2101, 1941.

[4] Jukes, T. H.: Reproduction in rats on synthetic B-complex supplements. Proc. Soc. Exper. Biol. & Med. 45: 625, 1940.

ble to plan a diet which will supply the daily requirement of 1–2 mg. from natural sources, it is not a simple matter[5]. Since this vitamin is so important, particularly for maintaining morale in this time of national crisis, the Committee on Food and Nutrition of the National Research Council has met the situation by the fortification of bread and white flour with synthetic vitamin B_1. We believe this is a safe and wise procedure involving none of the aforesaid danger because relatively small amounts of the vitamin are introduced and the deficiency of this factor in the American dietary, though mild, is widespread[6].

Therapeutic use of the synthetic vitamins is important where faulty absorption demands parenteral administration or where the time element is important due to the critical condition of the patient. The parenteral use of nicotinic acid has resulted in the cure of many severely ill pellagrins whose condition would have been hopeless with the former oral treatment.

Whenever large amounts of the synthetic vitamins are required, however, care is necessary to prevent a state of vitamin imbalance with the resultant danger of precipitating or crystallizing a secondary vitamin deficiency. Anything capable of great good is usually capable of harm if misused or abused. Our responsibility does not end with the alleviation of a crisis due to a primary vitamin deficiency in a severely ill patient. Common sense and good judgment must be applied to this problem. If a patient is deficient in six vitamins the administration of one cannot be expected to cure him. Sometimes the symptoms of the other five as they progress prove more alarming than the first. Treatment to be ultimately effective must supply in adequate amounts all the required vitamins. Consequently, the use of rich natural sources of all the vitamins should accompany the therapeutic use of any single synthetic one.

[5] Elvehjem, C. A.: The vitamin B complex in normal nutrition. Nature (London) 146: 669, 1940.

[6] Williams, R. R., and Spies, T. D.: Vitamin B_1 (Thiamin) and its Use in Medicine. New York: The Macmillan Company, 1938.

THE NATIONAL NUTRITION CONFERENCE FOR DEFENSE

Excerpts from the addresses of prominent speakers and the "Recommended Daily Allowances for Specific Nutrients" appeared in a previous issue of this JOURNAL, other excerpts are in this. More than 800 persons attended the Conference—nutritionists and dietitians, specialists in research, doctors, dentists, nurses and social workers, food technologists, farmers, millers, bakers, canners, dairymen, wholesalers, retailers and consumers. Recommendations of the nine sections of the Conference were presented during the closing sessions, and since these in their finally edited form will, it is understood, be generally available, only brief mention is made here of the recommendations most pertinent to dietitians.

Section III, under the chairmanship of Dr. James S. McLester, urged that "all agencies in the community, public and private, be coordinated in a single effort to improve nutrition." Section IV, under the chairmanship of Dr. Frank Boudreau, stated that "Education in the need for adequate diets is a continuing need and should be carried on by the most practical methods. . . . Steps should

be taken to condition nutritionally those classes of the population which are likely to become defense workers", that is, organized groups in CCC camps, NYA and so on. Section V, under the chairmanship of Dorothy Williams, recommended that the services of professional workers "be augmented by qualified lay leaders" outside the professional nutrition field and that both professional and lay leaders "be given pre-service and in-service education in nutrition."

Section VIa, under the chairmanship of Dr. Lydia J. Roberts, urged that strong courses in nutrition be included in the curriculum of all institutions training those who have contact with large groups of the population. To meet the need of in-service education and consultation, there is "need for an additional number of nutritionists, thoroughly trained in the scientific background of nutrition and its practical application." Section VIb, with Dr. L. H. Newburgh as chairman, stated that "We recognize the inadequacy of the teaching of nutrition and dietary needs to medical and dental students", and that the student is not given sufficient training in the practical application of the basic information he receives. Postgraduate courses in nutrition were also urged for physicians and dentists and the establishment of nutrition clinics in professional schools. Section VII, with Hector Lazo as chairman, believed that education of the consumer is needed so that the nutritional factors in processed foods are utilized without waste or loss, that the nutritional importance of ordinary foods be emphasized, and that "governmental agencies cooperate with industry in making known to consumers the existence of large amounts of low-cost and nutritionally valuable foods that are not now fully used."

Finally, and very pertinently, Section IX, with Katharine Ansley as chairman, pointed out that "All the results of the researchers in the field of nutrition, all the allowances in terms of international units . . . are of no avail unless translated into meals that will be eaten with benefit and pleasure." Thus food service operators have the responsibility of organizing their establishments and training their employees to the end that people will accept and enjoy "the combinations of foods that the scientists recommend, both the old and popular and the less well known and less popular nutritionally adequate foodstuffs."

This section recommended that established food allowances be translated into quantitative practical terms for convenient use by those responsible for group food service, that simple materials be available on menu planning and on methods of handling, preparing and serving food which will preserve the nutritive values and develop palatability. Here the possible exigencies of limited equipment, local conditions and food habits must be considered. Cooks must be trained in proper methods of cooking. Products which will increase food value without increasing cost must be investigated. Consideration must be given to the proper use of surplus commodities, and to the preservation, storage and economical use of these surplus foods. Directors of public and private institutions should measure their dietaries in terms of nutritional adequacy as well as cost. Greater recognition should be given by the public to the relation of the school lunch to the establishment of good food habits and the fact that the same applies

in the feeding of college and university students. Since communal feeding is an eventuality in the defense program, the organization and operation of such services, including food supplies, equipment and personnel, must be considered, and in the light of all this those concerned with the nutrition problems of group feeding, both in its scientific and practical aspects, should be represented on local nutrition committees.

As the *Journal* of the American Medical Association has editorially observed[1]: Some one with a genius for phraseology has classed hunger into hollow hunger and hidden hunger—the one induced by absence of enough food, the other which occurs in people who satiate themselves with food yet miss that minimal of the essentials to health. Thus, no doubt, everyone has some malnutrition, if the term is defined as an error of nutrition rather than under-nutrition. The writer continues:

> Today the situation in nutrition is like an inverted pyramid. At the bottom is the small body of medical scientists, food economists, nutritionists and educators who possess the necessary knowledge for the improvement of national nutrition. The pyramid expands upward through producers and purveyors of foods to manufacturers of prepared foods and through wholesale and retail distributors; at the broad top are the consumers. This is the type of pyramid which usually falls unless more and more attention is given to the tiny point on which it rests. This point must be broadened; at this point the greatest support and expansion are needed.

The responsibility of that relatively small, yet potentially great and far-reaching organization, the American Dietetic Association, the membership of which is made up solely of specialists in foods and nutrition who alone possess both the requisite knowledge of scientific nutrition and, *fully as important*, its practical application, seems clear-cut, indeed.

[1] J. A. M. A. 116: 2854, 1941.

HELEN ATWATER RETIRES AS EDITOR, JOURNAL OF HOME ECONOMICS

At the 1941 annual meeting of the American Home Economics Association in Chicago, announcement was made of the retirement of Helen W. Atwater following eighteen years as editor of the Association's *Journal of Home Economics*. A graduate of Smith College, Miss Atwater embarked on her career as an editor of scientific material when she assisted her father, W. O. Atwater, an American pioneer in the science of nutrition and a contemporary of Rubner, Lusk and Cathcart, who with Dr. Atwater were numbered among Carl von Voit's most distinguished pupils. Miss Atwater's early years, therefore, were spent in close association with many of those who helped to lay the foundation for the science of nutrition as we know it today. Her broad cultural background, too, gave her keen insight in discerning values, so evident in her high editorial standards through the years. In 1909 when Helen Atwater began her editorial work on the scientific staff of the Office of Home Economics of the U. S. Department of Agriculture, few could have dreamed of the possibilities in the field of home economics as they exist today. It appears that Miss Atwater's insight has been well-abetted by alert foresight, for undoubtedly in her official connection

with the national home economics association she has helped in determining many of its policies, and sighted the objectives which have made it one of the strongest professional organizations in this country.

We wish her many years of happy freedom from the cares of galley and page proof, of onrushing deadlines, of dilatory dalliers, and of the thousand and one dilemmas which can beset even the most fortunate of editors.

Miss Atwater is succeeded by Helen Hostetter, who begins her duties as editor this September, and who is admirably equipped to take over the duties of her capable predecessor. Miss Hostetter majored in English literature at the University of Nebraska, received her master's degree in journalism at Northwestern University and the bachelor's degree in home economics at Kansas State College. All this has been interspersed with courses at the University of Wisconsin, the University of Chicago, Columbia University and the New School for Social Research. Her journalistic experience has been extensive and varied, ranging from that of reporter to the responsibilities of makeup, press releases, editorial writer and editor of a variety of publications, some of general scope and others more directly related to the field of home economics. Miss Hostetter has lived in the Orient and travelled over a considerable part of its area. She is also one of the relatively few Americans who have traversed Russia from Siberia to Western Europe. Her ability and enthusiasm for her work, her poise and keen interest in people and affairs, and her friendly open-mindedness should serve her well in her new responsibilities.

CURRENT COMMENT

RE-EVALUATING STUDENT DIETITIAN TRAINING[1]

LENNA F. COOPER

There is a need of re-evaluating our training program for student dietitians due to the changes made in college curricula, largely at our request, for those majoring in our field of work. Colleges at one time included comparatively few of the subjects now required for admission to A.D.A. approved courses. In looking up our records, I find that fifteen years ago the Association decided to raise the standards for active membership to a four-year college course with a major in foods and nutrition, effective October 1, 1926. A few years later a major in institution management was permitted as an alternate. In 1926 an outline of a hospital course for student dietitians was presented to the Association for further study. With some modifications it was accepted in 1927.

It will be remembered that in 1927 none of our students came to us with the background they now have. As a result, we had to teach diet in disease as a basic course during hospital training, and in most instances, quantity cookery, including construction and use of equipment, organization and management, accounting and marketing.

[1] This and the following two short papers comprised a Panel Discussion presented before the Session on Problems in Education, American Dietetic Association, New York, October 24, 1940.

Beginning in 1940, college graduates entered training with these courses as a background. What adjustments, therefore, shall we make in our teaching program to avoid duplication? Some of the directors of training courses have been requiring these subjects even before they were demanded by the Association. Upon questioning some of our own students it appeared that in many instances we were duplicating their college training. In order to avoid such repetition I would make the following suggestions:

1. That instead of classroom instruction, we substitute the seminar and conference type of teaching, supplemented, of course, by lectures presented by specialists in each subject.
2. That seminars generally be conducted by a student under the guidance of a staff member, and that current literature be used freely as references.
3. That students acquire a knowledge of all available journals pertaining to their work through at least one monthly review of current literature. In addition, students may be asked to abstract a certain number of articles each month.
4. Last, but not least, we should recognize the fact that the most valuable method of teaching is that which is employed in hospitals in the teaching of interns, *i.e.* individual guidance "on the job". Each staff member must be impressed with her responsibility in this type of instruction.

A check-list of duties for each assignment is helpful both to the instructor and the student. The conference type of instruction is equally valuable to the dietitian and the medical intern alike.

I am impressed also with the need of training students for small hospital work. At a recent meeting of the Council of Professional Practice of the American Hospital Association several of the hospital administrators emphasized the need and the difficulty of obtaining competent dietitians for small hospitals. I believe we should remedy this situation in our training and the number of graduates we turn out.

We shall be found lacking in numbers unless we extend our facilities for training. Therefore I believe we should encourage hospitals now giving courses to train as many students as their facilities will permit and, where possible, encourage other suitably equipped hospitals to institute such courses.

DEVELOPING A SENSE OF RESPONSIBILITY IN THE STUDENT

MABLE MACLACHLAN

It has been difficult to find competent, well-trained dietitians for small institutions. In training students, therefore, there are cogent reasons in favor of experience suited to the needs of the small hospital. Such training has its broad advantages. The small institution is an excellent place to test one's ability in administration and diet therapy, as well as in teaching. It permits experience which tends to give more understanding of the problems of a hospital dietetic staff, and a closer association with the patients both as individuals and in regard to all phases of their care and treatment.

There are some disadvantages in the small hospital field. Salaries for the most part are low. If the location is in a small town or city, activities and professional contacts are often limited. One young dietitian so located told me that she had not seen another dietitian for a year. It is discouraging to be unable to discuss your problems with others having similar interests, but on the other hand,

in such positions one must sooner or later acquire the ability to make decisions on one's own.

In the small hospital there is often lack of incentive to develop new ideas or a new program for the dietary department. It may seem more difficult to interest the director of the small institution. Another handicap is that there may be a large labor turn-over due to low wages, with the result that much of the dietitian's time and energy may be required in training new employees, leaving little time to plan for improvements.

But this doesn't answer the question why the young dietitian who goes to the small hospital fails to meet the needs of such an institution. Perhaps it is because the majority have received their training in large hospitals where the dietetic staff is large and highly specialized. It is hard for the student to see how one dietitian can coordinate the administrative, therapeutic and educational activities. In large institutions there is much routine detail which is unnecessary in the small hospital where the members of the various staffs see each other personally several times a day. The young dietitian is likely to feel that without this intricate detail there is lack of organization or lowering of standards.

In the small hospital the dietitian works very closely with her employees. She must often assign to unskilled employees certain duties which ordinarily are hers. It is often the judgment or lack of judgment with which these assignments are made which makes for success or failure in the small institution.

One way in which we can better the situation is to give our student dietitians a period of service in a small hospital which has high standards of food and service. Here they will note the many problems which confront the dietitian responsible for all phases of dietetics, and later through class discussion they will have an opportunity to find the solution to some of their questions.

Housekeeping is often an added responsibility in the small hospital. The young dietitian may be inherently a good housekeeper. Often she has had no opportunity to test her ability. With the many extra-curricular activities of high school and college, young women are not held responsible for any part of the home housekeeping. They take for granted that their rooms, the building in which they live and even their clothes are to be cared for by others and never question the hows and whys of the housekeeping. A course in college which merely describes household or institution machinery, working tools and materials, is theoretical, not applied knowledge. On questioning several graduates of our student course I found that the one place which made them aware of housekeeping standards was the college practice house. This experience has been mentioned as one of the most valuable by outstanding students, not only for housekeeping experience but in acquiring ability to work with others, to give and accept orders and work on their own initiative. The student dietitians in the course at the University of Michigan are assigned to the housekeeping unit for three weeks' service. Here they make work schedules, report on the operation of the laundry, compare cleaning supplies, figure time cards, accompany supervisors on rounds and substitute for them on their days off duty. Such experience is most profitable, for they become fully aware of the work and organization in-

volved in keeping a hospital clean and running smoothly.

A sense of responsibility is attained only through experience in having a job thrust upon one and being told to see it through. With it comes real knowledge of the operation of an organization. Too often the student dietitian knows and understands the surface routine of a department but is not even dimly aware of some of the departmental and interdepartmental problems that are the concern of the staff dietitian whose job it is to keep the mechanics of a department running smoothly and to see that the student learns how to meet these problems. If we check the students' diets too constantly, some may lose all feeling of responsibility. They reason, "Oh, well, Miss Brown will correct it!" At what point and when should the full responsibility be turned over to a student? We have found that by giving the student the responsibility of a unit during the vacation period, for instance, she will profit more than she will under any amount of closely supervised practice, and she herself then gains the praise or merits the censure for good or poor work.

PREPARING THE STUDENT DIETITIAN FOR HER JOB

PHYLLIS CHAMBERLAIN

The training of a dietitian is no easy task. It is a long, continuous process involving hard work and a great deal of responsibility. During the junior year the student in foods and nutrition must choose the field in which she wishes to major. There are several specialized fields into which she may venture—hospital dietetics, institution management, teaching, commercial work, and so on. Having chosen her special interest she should select the training that will best fit her for a given job, whether it be in the hospital or dormitory, or a business activity. In choosing a hospital she should consider the one which has most to offer in her particular field—therapeutics, clinic, research, teaching, administration, and the like.

The student should consider the possibilities in the whole field of dietetics, for there are paths and side-roads leading off from each busy highway. So it is with any profession. One must learn how to travel safely and smoothly down the open road and then venture into the less familiar places. Consider college training, for example. For each course there are clearly defined prerequisites. When the student has met these, does it necessarily mean that she is well trained for a dietetic apprenticeship? If the student has used foresight and initiative she will have noted the several specialized activities that her profession offers and acquainted herself with these. Every college offers electives to most courses and the enterprising student can register for those which she feels will better equip her for the world outside the college. For example, if she chooses research, advanced chemistry would be indicated; if she wishes to teach, public speaking. Visits to restaurants and hotels aid those choosing administration and institution management.

What does the hospital dietitian expect of the student from an accredited college? The recommendations may be excellent, the transcript show good marks and well chosen courses, the doctor may have certified a good physical condition, and the photograph may be pleasing. The director makes her selection from numerous applicants and hasn't she the right to

expect the best? When the student does not come up to her anticipations is she requiring too much, was her selection faulty, was there a discrepancy in the information sent to her, is the student at fault, or is the training course unfitted for the average college graduate? These are questions that arise in every hospital dietitian's mind.

Each student must be permitted a period of adjustment. Hospital routine and procedures are distinctly unlike those of any other organization and are probably foreign to most students. During college she has gleaned the greater part of her knowledge solely from books and articles written by experienced people in the field. When she enters the hospital she is expected to recall all such information and put it into practical use. But the circumstances may be different and the environment almost certainly will be strange. She adjusts in the most satisfactory way possible, assuming, of course, that she has the urge to adjust.

Having made her adjustment she begins to look beyond her fellow students, her room, and the work which directly confronts her. Is the work which is expected of her justified? Must she keep a notebook on every service, filling it with perhaps unimportant material which will lend volume and so impress her superior? Are all the special problems to which she is assigned of real value to the hospital and the dietetic profession or are they something merely to occupy her hours off duty when she might otherwise be investigating those side roads and deciding on which phase of hospital dietetics to specialize? Are the ratings received from each service absolutely fair and motivated neither by personal feelings nor prejudice? Will criticism be given constructively and her good points encouraged so that she may retain her confidence and self-assurance? When she finishes will she be experienced in representative phases of hospital work so that she can fit into a job? Is the hospital so equipped that the student may be given experience in all types of work?

Certainly the student who has gone through college with the thought of dietetics as a profession should know the rudiments of good cooking and the food standards which anyone has a right to demand. But have you ever given your students a practical cooking test? Nelda Ross, director of the Nutrition Department of the Columbia-Presbyterian Medical Center, gave such an examination to test her students' ability to prepare simple menus. It appeared that college had failed in teaching practical cooking or that the students did not believe in the old adage "practice makes perfect." Anyone in the field of dietetics should have a liking for food and its preparation if she intends to succeed. The dietitian must be able to *do*, as well as to say how it should be done.

Let us look at the recommendations that are sent to the hospital dietitian and which are her chief means of selecting students. The recommendations, therefore, should be clear, concise, and honest. The student may have been able to adjust herself satisfactorily in a college group, but will she be able to do this in an entirely different surrounding, a hospital? The colleges should debate that question before recommending a student for training.

And finally, are you doing everything in your power to equip the student for a position when she finishes your course?

Does your course include as much administration, therapeutics, research, and clinic work as possible? Isn't it your responsibility to see that the student gets training in each so that she may select the work for which she is best suited?

After training, then what? Shall the student accept any position merely to bide time until she achieves one more suited to her special aptitudes? When a student accepts a position under these circumstances her job may become a monotonous routine with no new fields of interest unless she has gained from her student course a knowledge of the fundamentals of exploration, practical experimentation, and sound methods of improvement. She must be able to apply all her training with zest and enthusiasm if she is to grow and in so doing expand and broaden the fields of our profession.

This Modern Science of Nutrition

I know this Conference can do much to build this broad foundation because I have watched for many years the development of this modern science of nutrition. Forty years ago doctors were taught very little about diet. Most of them cared less. The farmers of the country learned about scientific nutrition of livestock before the mothers of the country learned about scientific nutrition of their children. During the past twenty years, and especially during the past five years, we have found out perhaps half of those things which we should have known but didn't know. The progress has been so startling that it makes those of us who have watched it carefully almost evangelical in our fervor with regard to food.—*From an address by Vice President Henry A. Wallace, before the National Nutrition Conference, Washington, D. C., May 27, 1941.*

The National Economy

As we develop a program of total defense today we must face not only the present but the future, and must lay the foundations on which a strong America can be built when the emergency is past. We entered the defense emergency after years of depression. We look back to the post-war periods of the past and see them marked by economic collapse. But we cannot let fear of a post-war slump stand in our way today, for we must, at our peril, avoid such a collapse when the emergency is past. No nation which cannot effectively order its own economy can expect to survive in the world of tomorrow. The framework within which we build sound nutrition for strong defense today extends forward to the only future which can give meaning to our present effort—one in which health, security and opportunity are the birthright of all our people.—*From an address by Harriet Elliott before the National Nutrition Conference, Washington, D. C., May 27, 1941.*

THE ST. LOUIS MEETING

Announcements of Officers

The President, American Dietetic Association.—The American Dietetic Association was founded in time of war and emergency. Today it is strong and well equipped to serve in another period of emergency at home and war abroad. This year, more than ever, each of us needs to sense the bonds of fellowship which have been welded by professional training and experience and which become stronger each time we assemble annually. Every member, therefore, will wish to attend the St. Louis convention.

The questions: What can I do? How can I serve best? What is my personal responsibility in the nutrition movement? will be answered, in part at least, by the speakers on the program. It will be stimulating to talk with others and learn something of their individual problems, too.

Best of all will be the times when work is forgotten in the companionship of friends and enjoyment of the entertainment which the committee is providing.—MARY I. BARBER.

The Convention Chairman and President, St. Louis Dietetic Association.—Missourians have long had the reputation for having to be shown. As you know, Missouri is often called the "Show Me State". The dietitians of Missouri, therefore, are making great preparations to "show you", the members of the American Dietetic Association, a hearty welcome, a full program of outstanding speakers, and entertainment galore. No one can afford to miss the twenty-fourth annual convention.

Make your plans now to come for the tea on Sunday, October 19, and remain for the trips on Friday. During your stay we hope to show you St. Louis and Missouri at their best.—RUTH M. KAHN.

The President, Missouri Dietetic Association.—The Missouri Dietetic Association will be very happy to welcome you to the Midwest for a convention. You will be coming to Missouri during one of our most delightful seasons and we particularly recommend motoring through the Ozarks at this time, if you bring your car.

The program committee is taking full advantage of the fact that we have two excellent medical schools from which to select speakers for the program, as well as the other outstanding national speakers whom you will hear.

We think you will find St. Louis, on the Mississippi River, an interesting place to visit since there is a pleasant blend of old trading post, old South, new West, and a tang of the brisk East pervading the air.

It will be our sincere pleasure to greet you all at the tea on Sunday afternoon before the convention starts.—LOUISE WILKONSON.

The Program—October 17–24

The Executive Board meetings will be held Friday and Saturday, October 17–18. Registration, as usual, will open at 9.00 a.m. Sunday. The first meeting of the House of Delegates will be on Sunday at 10:30 a.m. The St. Louis Dietetic Association has planned a tea at the Hotel Chase on Sunday, October 19, for American Dietetic Association members.

The opening meeting on Monday will include the President's address and that of Dr. Russell M. Wilder, Chairman of the Committee on Food and Nutrition of the National Research Council, who will speak on "Nutrition and National Defense." On Monday evening Captain C. F. Kearney, Commandant of the Bakers and Cooks School at Fort Meade and Douglas MacKeachie of the Quartermaster Corps will tell us how the Army is fed. Nell Wickliffe will discuss the problems of feeding the soldier as a hospital patient.

On Tuesday morning the Community Education and Administration Sections will hold their section meetings. This year, in addition, an address is scheduled for each section meeting. Marjorie M. Heseltine, consultant in nutrition to the Children's Bureau, U. S. Department of Labor, will be the main speaker at the Community Education Section meeting. At this time, also, a summary of the progress of various states in the Nutrition Defense Program will be given. Another feature of the Tuesday morning program is a Panel Discussion of "Newer Concepts on Normal Nutrition" with the following speakers and topics scheduled: Dr. H. H. Mitchell, University of Illinois, "Amino Acids"; Dr. Wendell Griffith, St. Louis University, "Fats"; Dr. Genevieve Stearns, State University of Iowa, "Minerals"; and Dr. Tom D. Spies,

University of Cincinnati Medical School, "Vitamins." The Tuesday afternoon session on Nutrition and Diet Therapy will include the following: Dr. Seale Harris, Sr., author of *Clinical Pellagra*, who will report recent investigations on pellagra; Dr. Leon Schiff, College of Medicine, University of Cincinnati, "Use of the Meulengracht Diet in the Treatment of Peptic Ulcer"; Dr. Harry L. Alexander, St. Louis, Editor of the *Journal of Allergy*, "Allergy"; Dr. E. Neige Todhunter, University of Alabama, "Measurement of Nutritional Status."

The Administration Section meeting on Tuesday afternoon will consider College and Residence Hall Problems and a General Session on Wednesday morning, Quality Food Production and Quality Food Service. The session on Problems of Personnel on Thursday morning is being planned by Margaret Gillam.

At the Diet Therapy Section meeting on Wednesday morning, Dr. Robert Elman, St. Louis, will speak on "Importance of Proteins in Surgical Healing" and Dr. Ruth Leverton, University of Nebraska, will report recent work in connection with anemia. At a General Session on Professional Education concerning the "Dietitian as a Teacher", speakers will include: Lucille Rust, Kansas State College, "Courses in Methods of Teaching the Dietetic Student"; Ruth L. White, Forsyth Dental Infirmary, Boston, "The Dietitian as a Teacher of Dental Students"; Aileen Merwin, University Hospitals, Cleveland, "Teaching Nutrition to Student Nurses"; and Jean Crooks, Indiana Medical Center, "Problems of Teaching Patients."

Wednesday afternoon the Session on Public Information will include a talk by Martha Jackson of the St. Louis *Star-Times* on the "Newspaper Woman's Point of View." Dr. W. W. Bauer, Director of the Bureau of Health Education, American Medical Association, will present "Radio's Contribution." Dr. Mayhew Derryberry, Senior Public Health Statistician of the U. S. Public Health Service, will discuss the "Educational Value of Exhibits."

Following the precedent of the New York group who initiated an evening meeting of interest to the public, there will be an open meeting on Wednesday night at which The Reverend Alphonse M. Schwitalla, S.J., Dean of St. Louis University School of Medicine, will give the opening address. Dr. John B. Youmans, Vanderbilt University Medical School, will review some of his observations on health conditions in relation to the food supply and the state of nutrition of groups he has recently observed in France and Spain. Dr. Helen S. Mitchell, Director of Nutrition, Federal Security Agency, will present some of the nutrition problems in this country.

The Professional Education Section, meeting on Thursday morning, will hear Dr. Margaret Justin, Dean, Division of Home Economics, Kansas State College, speak on "Culture and Clatter." At the Thursday afternoon General Session on Community Education, Dr. J. V. Boyd, State University of Iowa, will speak on "Nutrition for Dental Health"; Dr. Katherine Bain, U. S. Children's Bureau, will discuss the nutrition of infants and children; and Dr. Hugh Leavell, Health Director, Louisville, Kentucky, will discuss community education from the standpoint of a health officer. The same afternoon a General Session on the School Lunch will include as speakers, Constance Hart, Rochester Public School System, Margaret Marco, National Youth Administration, and Margaret Batjer, Chief Home Economics Consultant, Works Project Administration.

A new note on the program this year is the scheduling of a series of Work Shops to give members an opportunity to discuss individual problems. The Work Shops on Administration will deal with Equipment Problems, Purchasing, and Sanitation. Three Community Education Work Shops include: "Reaching the Community with Nutrition"; "How to Make Community Teaching Effective"; and "The Training of Nutrition Aides" (or nutrition volunteers). The Food Clinic Work Shops are stressing the problems of teaching patients and will emphasize the place of exhibits in such teaching programs. Again this year there is to be a session on Maternal and Child Health. Special occasions will include a Welcoming Luncheon with Mayor Becker of St. Louis, Governor Donald of Missouri, Dr. James Stuart, State Health Officer, Dr. Joseph Peden, President of the St. Louis Medical Society and Dr. Park J. White as speakers. The Exhibitors' Dinner is planned for Tuesday at 7.00 p.m. Francis Douglas, the banquet speaker, will speak on "Missouriana". At the luncheon for Heads of Home Economics Departments and Directors of Approved Courses scheduled for Tuesday noon, an "Information Please" program, questions for which are to be submitted in advance, will be directed by Mrs.

Bessie Brooks West. The luncheon for State Presidents is scheduled for Wednesday noon and the Press Relations luncheon, Thursday noon.

The schedule of trips lists visits to historic buildings of old St. Louis, the famous Botanical Gardens, Art Museum, Municipal Open Air Theatre, Zoo, and includes commercial and school cafeterias, hotels, hospitals, universities, food processing establishments, and produce markets.

Round Trip Fares*

TO ST. LOUIS FROM	BY AIRWAY	BY TRAIN, FIRST CLASS LOWER	BY TRAIN, FIRST CLASS UPPER	BY TRAIN COACH	BY BUS
Atlanta, Ga.	$55.40	$28.35		$17.55†	$13.00
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Buffalo, N. Y.	70.10	40.85	36.75	22.10	18.30
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Chicago	23.30	10.75		13.15	4.50
Dallas, Texas	61.02	30.05		24.05	18.00
Denver	86.02	41.00		32.85	26.10
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Houston, Texas	86.22	36.75		29.45	22.05
Jacksonville, Fla.	86.00	42.40		26.95†	20.80
Kansas City	23.30	12.80		10.75	8.10
Los Angeles	173.60	85.60	70.10†	61.60	52.45
Memphis	25.06	14.00		9.35	7.05
Minneapolis	50.80	26.30		20.80	16.20
New Orleans	60.64	31.75		21.15	15.45
New York	96.30	57.15	51.45	31.75	20.75
Oklahoma City	44.46	24.45		19.55	14.35
Omaha	38.00	18.90		15.15	13.25
Pittsburgh	58.50	34.65	31.20	18.55	15.75
Portland, Ore.	183.30	85.60	70.10‡	61.60	52.45
Salt Lake City	125.66	58.80	50.55‡	48.95	41.25
San Francisco	189.00	85.60	70.10‡	61.60	52.45
Seattle	183.00	85.60	70.10‡	61.60	52.45
Washington, D. C.	78.66	48.90	44.00	27.15	20.75

The above rates by courtesy of the following facilities: Baltimore & Ohio and Pennsylvania Railroads, Missouri Pacific Lines, Transcontinental Airlines, and Greyhound Bus Lines.

Fares shown for lower and upper berths do not include the cost of space occupied.

On round trip from points east of Buffalo and Cumberland, and west of Denver the return may be made over a different route without exchange of ticket, and without additional cost if you signify your intention to the ticket agent at the time of purchase.

Those coming from other points, may include places of interest in their trips for a small additional cost. Be sure to consult your local ticket agent who will help you plan your trip.

* Fares obtained May 1, 1941. Subject to change without notice.

† Rates are for 15 days only. First Class fares to same cities are for 30 days.

‡ Tourist Class Fare.

House of Delegates 1940-1941

State	*Delegate*	*Alternate*
Alabama	Ina Barbee Crane, University of Alabama, University	Ethel Summerour, T.C.I. Hospital, Fairfield
California	Helen L. Gillum, University of California, Berkeley	Charlotte Sloan, Park Lane Hospital, Salinas
Colorado	Doris Odle, Presbyterian Hospital, Denver	Mary Reutz, Children's Hospital, Denver
Connecticut	Dorothy Milavetz, Grace Hospital, New Haven	I. Leslie Hunter, Bridgeport Hospital, Bridgeport
Delaware	Henrietta Fleck, Women's College, Newark	Anna Gaventa, Delaware Hospital, Wilmington
District of Columbia	Helen C. Burns, Walter Reed General Hospital, Washington, D. C.	Eva Marks, Gallinger Municipal Hospital, Washington, D. C.
Florida	Jennie Tilt, Florida State College for Women, Tallahassee	
Georgia	Lucia Hunt, Strickland Memorial Hospital, Griffin	
Illinois	Millie E. Kalsem, Cook County Hospital, Chicago	
Indiana	Cecilia Schuck, Purdue University, Lafayette	Marie Flanigan, Indiana University Medical Center, Indianapolis
Iowa	Edna M. Shalla, University Hospitals, Iowa City	Fern W. Gleiser, Iowa State College, Ames
Kansas	Martha S. Pittman, Kansas State College, Manhattan	Dillia Steiner, Wesley Hospital, Wichita
Kentucky	Mary Hood Gillaspie, Burlington	Florence Imlay, Experiment Station, Lexington
Louisiana	Elva James Kahrs, Department of Institutions, Baton Rouge	Adelle Corey, East Louisiana State Hospital, Jackson
Maryland	Helen Schmit, Baltimore City Hospitals, Baltimore	
Massachusetts	Dorothy Duckles, 137 Newbury Street, Boston	Ruth White, Forsyth Dental Infirmary, Boston
Michigan	Mable MacLachlan, University Hospital, Ann Arbor	
Minnesota	Chrissa Wendt, Eitel Hospital, Minneapolis	Martha Otto, St. Andrews Hospital, Minneapolis
Missouri	Ethel Ollis, Research Hospital, Kansas City	Theodora Stebbins, The Koch Hospital, Koch
Montana	Helen Bennett, St. Peter's Hospital, Helena	
Nebraska	Lydia Beck, Methodist Hospital, Omaha	
New Jersey	Sophia Morris, Beth Israel Hospital, Newark	Lillian E. Park, Essex County Hospital, Cedar Grove
New York	Blanche Bohach, General Hospital, Rochester	Ethel Lewis Marth, 414 W. Gray Street, Elmira
North Carolina	Elsie W. Martin, Duke University Hospital, Durham	
Ohio	Elizabeth Perry, City Hospital, Cleveland	Inistore Simms, Youngstown Hospital, Youngstown

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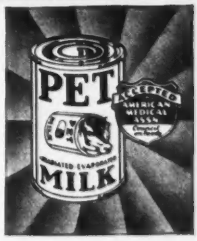

House of Delegates 1940-1941—*Concluded*

State	*Delegate*	*Alternate*
Oklahoma	Maxine Turner, Oklahoma State Health Department, Oklahoma City	Lola Heuerman Janis, Oklahoma A. & M. College, Stillwater
Pennsylvania	Phyllis K. Sprague, Pennsylvania State College, State College	Grace Godfrey, Drexel Institute, Philadelphia
Rhode Island	Doris V. Batchelder, 44 Lockwood Street, Providence	Ruth Fitch, Rhode Island Hospital, Providence
Tennessee	Fairfax T. Proudfit, John Gaston Hospital, Memphis	Mary Wilson, George Peabody College, Nashville
Texas	Frances Low, Methodist Hospital, Houston	Mary B. Clark, Southern Methodist University, Dallas
Utah	Katharine S. Bielby, Latter-Day Saints Hospital, Salt Lake City	Emily J. Leigh, Latter-Day Saints Hospital, Salt Lake City
Virginia	Bernice R. Varner, Madison College, Harrisonburg	Lois Watts, Grace Hospital, Richmond
Washington	Dorothy Anderson, King County Hospital System, Seattle	
Wisconsin	Nell Clausen, Children's Hospital, Milwaukee	Ada B. Lothe, Milwaukee County Hospital, Wauwatosa

Exhibitors at the St. Louis Meeting

Aluminum Cooking Utensil Company, New Kensington, Pennsylvania
American Can Company, New York
Armour and Company, Chicago
Battle Creek Food Company, Battle Creek
Best Foods, Inc., New York
Borden Company, New York
Canada Dry Ginger Ale, Inc., New York
Carnation Company, Oconomowoc, Wisconsin
Chicago Dietetic Supply House, Chicago
Chr. Hansen's Laboratory, Inc., Little Falls, New York
Citrus Concentrates, Inc., Dunedin, Florida
The Colson Corporation, Elyria, Ohio
Cream of Wheat Corporation, Minneapolis
R. B. Davis Sales Company, Hoboken, New Jersey
Edison General Electric Appliance Company, Chicago
Florida Citrus Commission, Lakeland, Florida
J. B. Ford Sales Company, Wyandotte, Michigan
Frosted Foods Corporation, New York
Fruit Dispatch Company, New York
General Foods, Inc., New York
Gerber Products Company, Fremont, Michigan
Hawaiian Pineapple Company, San Francisco
H. J. Heinz Company, Pittsburgh
Hilker and Bletsch Company, Cincinnati
Horlick's Malted Milk Corporation, Racine, Wisconsin
Irradiated Evaporated Milk Institute, Chicago
Kellogg Company, Battle Creek
Knox Gelatine Company, Johnstown, New York
Kraft Cheese Company, Chicago
Libby, McNeill and Libby, Chicago
J. B. Lippincott Company, Philadelphia
The Macmillan Company, New York
National Biscuit Company, New York
National Canners Association, Washington, D. C.
National Dairy Council, Chicago
National Live Stock and Meat Board, Chicago
Pet Milk Company, St. Louis
Quaker Oats Company, Chicago
Ralston Purina Company, St. Louis
Reynolds Electric Company, Chicago
W. B. Saunders Company, Philadelphia
Sealtest Laboratory Kitchen, New York
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Standard Brands Inc., New York
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Wisconsin Alumni Research Foundation, Madison, Wisconsin

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BOOK REVIEWS

Chemistry of Food and Nutrition. By Henry C. Sherman. New York: The Macmillan Company, 1941. Sixth edition. Pp. 611. Cloth. Price $3.25.

Every dietitian is familiar with Sherman's *Chemistry of Food and Nutrition* for its several editions have kept pace with the rapid advances in nutritional knowledge since 1911. The just previous edition was reviewed in this JOURNAL for May 1937. As would be expected, Dr. Sherman's discerning judgment in incorporating recent advances continues to be manifest in the current edition. Every chapter has been carefully revised and the latter half of the book completely rewritten. In addition three new chapters concerning the vitamins, the relation of food supply to pellagra and its associated deficiency diseases, have been inserted. Food tables have been brought into agreement with the new government tables and vitamin values revised in the light of the available evidence to date. All such vitamin values in foods are given in terms of a reasonable range from which the author hopes that the true average will ultimately be established.

New averages on the mineral content of foods based on evidence available to the end of 1940 have been included, also a new table on the copper and manganese content of food. In view of the marked interest in nutrition at present, this edition is particularly timely and welcome.

The Endocrine Function of Iodine. By William Thomas Salter, M. D., Assistant Professor of Medicine, Harvard Medical School. Cambridge: Harvard University Press, 1941. Pp. 351. Cloth. Price $3.50.

This is number one in a series of monographs on medicine and public health, authored by a distinguished scientist and published under the auspices of an editorial committee, the personnel of which assures that none but a highly selective and scholarly contribution will be admitted to the series.

The book under review will be wholly understandable and therefore of interest chiefly to physiologists, biochemists and advanced students of nutrition. The surgeon, the clinician and the dietitian, however, will also find a vast fund of information that is immediately applicable to their problems. The scope of the book may be judged by the fact that nearly 600 references and over 100 "incidental" references passed in review in its compilation.

Chapters include: iodine balance and endocrine balance; iodine stores in body tissues, iodine compounds of biological importance; circulating iodine; thyroid activity; iodine and the pituitary-ovarian axis; neurological influence; radioactive iodine; and clinical problems. The appendix for laboratory workers includes those analytical procedures which have been adapted to everyday problems. Very recent data have been included and many observations which offer a refreshingly new viewpoint to dietitians and nutritionists.

How to Prevent Goiter. By Israel Bram, M.D. New York: E. P. Dutton & Co. Inc., 1941. Pp. 182. Cloth. Price $2.

Dr. Bram has attempted the difficult task of writing on a subject in which the average layman is intensely interested and of which he is vastly ignorant. It is an ambitious book which the author, as he says, undoubtedly enjoyed writing. It is doubtful, however, whether the average reader will enjoy reading it, for if he persists he is likely to end with a self-diagnosis disquieting indeed. For the non-introspective, capable of a well-balanced objectivity, the book will not be too disturbing.

A sample of the approach is quoted from the preface: "Were a careful examination made of the necks of all residents of a city like New York, many of us would be astounded to learn that at least every twentieth person presents a mild, moderate or large goiter." The casual reader thereafter is likely to look upon his own neck with serious misgivings and when he reaches p. 42 goiter appears to be inevitable and he is sure to be convinced that his neck is a danger zone.

There are statements in the book based upon hypotheses which might be difficult to prove: *i.e.* p. 86 in treating goiter, "animal food should be reduced to a minimum"; in treating exophalmic goiter, p. 121, "flesh foods should be reduced to a minimum"; on p. 111, "A healthy layer of adipose tissue about the bony framework is an excellent bromide against edgy nerves"; and p. 143, "There is less . . . mental

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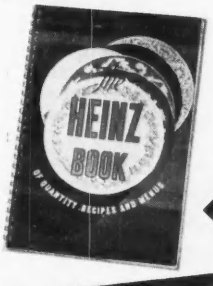

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disease among the obese; also fewer digestive disturbances." The little knowledge gained from such a book, might be a dangerous thing, indeed, in the hands of those lacking intelligence to observe Dr. Bram's statement "that these chapters are not offered as a substitute for the physician."

Elimination Diets and the Patient's Allergies. A Handbook of Allergy. By Albert H. Rowe, M.D. Philadelphia: Lea & Febiger, 1941. Pp. 264. Cloth. Price $3.

Elimination diets in the treatment of food allergies, as originated by Dr. Rowe, have become a standard procedure in diagnosis. The book under review presents a simple, concise discussion of such tests and of other means of diagnosis, including methods of obtaining the allergic history, skin testing, diet diaries and other indices. A lengthy chapter details the many causes of allergy other than food, including inhalants, contactants, and injectants. Others concern clinical allergy and its control, the elimination diets (including detailed menus) and an appendix which includes a discussion of nutritional requirements, methods of environmental control, questionnaires, pollen therapy, biological relationships of foods, and recipes for use with elimination diets. Many of these recipes, according to Dr. Rowe, are new or revised according to the experience of various patients and Eva Court, dietitian, who also assisted in the preparation of the menus.

Dietitians will find this a valuable reference in teaching and practice.

The Martha Washington Cook Book. By Marie Kimball. New York: Coward-McCann, 1940. Illustrated. Pp. 212. Cloth. Price $3.

This exquisitely bound book portrays in text and illustration the Washington ménage at Mount Vernon, at New York, the first capital, and later in Philadelphia. Decorative end papers depict the kitchen garden at Mount Vernon, a spot dear to the simple tastes and thrifty habits of the General and his lady. Even as today the problem of cooks was a weighty one, and General Washington was more than once forced to advertise in the newspapers for a cook who "can bring indubitable testimonials of sobriety, honesty and attention to the duties of the station."

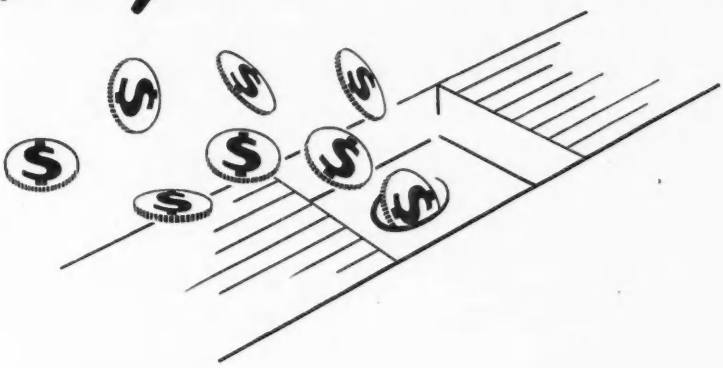
Martha Washington left a small leather-bound cook book which contained the "rules" which made her famous as a housewife and which in turn she had received from her first husband's mother. The more than 500 recipes in the hand-written original have a distinctly 17th century English flavor. On the whole, these concoctions as they appear in the original cook book would seem too florid for modern tastes. The recipes in the book under review obviously do not include the too robust culinary items and serve to reintroduce the many delicate and elusive flavors and condiments which were in common use in Martha Washington's day. Cumbersome and difficult were the cookery methods of 200 years ago but the housewives of the period were familiar with many nuances of flavor unknown to us today. Fruits, berries and flowers, many of them strangers to modern cookery, were commonly used.

The student of culinary lore, the collector of unique cook books and those weary of the marshmallow and whipped cream school of cookery, will enjoy this book.

200 Ways to Control Food Costs in Quantity Cookery. By J. O. Dahl. Stamford: The Dahls, 1940. Pp. 192. Cloth. Price $1.

Another of the Dahl handbooks is presented under the above title. It is a compilation of quantity food production material, some of which has previously appeared in *Hotel Management* or *Restaurant Management*, or is available from business firms or government agencies. For the new or untrained operator it does emphasize the need for specific information as to yields, costs, and controls in operation, but the content does not warrant whole-hearted endorsement of the author's statement that he possesses the greatest name in quantity cookery.

Money down the drain?



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CURRENT LITERATURE

American Journal of Digestive Diseases

Vol. 8, April 1941

*On the fate of ingested pectin. S. C. Werch and A. C. Ivy.—p. 101.

Contributions made in 1940 to knowledge in regard to the pancreas. R. Elman and L. A. Sachar.—p. 105.

*The effect of feeding apple sauce on induced diarrhea in rats. Z. I. Kertesc, M. S. Walker and C. M. McCay.—p. 124.

Vol. 8, May 1941

*Nutrition and defense. A. F. Morgan.—p. 163.

*The influence of certain fruit juices on gastric function. J. B. Kirsner.—p. 163.

PECTIN. Human subjects decomposed 90% of the pectin fed with a mixed diet. The fasting man is capable of decomposing more pectin than the fasting dog. Ileostomy experiments in the human and the dog show that breakdown occurs chiefly in the colon and not in the upper intestine. Bacterial enzymes are involved.

INDUCED DIARRHEA IN RATS. Rats fed on a diet of 10 cc. milk containing 1 gm. lactose per day developed diarrhea. When apple sauce was fed after diarrhea had persisted for 3 days, 84% of the animals were cured. Apple sauce in which the pectins were digested by enzymes showed an "efficiency" of 39%. The curative effect depended on the pectins and fibrous materials responsible for its colloidal properties.

NUTRITION AND DEFENSE. American processors and producers have brought about the most profuse and varied supply of food ever available to any people, and have destroyed part of its nutritive value. Chiefly at fault are (a) the decortication and degermination of cereals, especially wheat, and the crystallization of chemically pure sugar out of the cane and beet, and (b) the canning and drying of all sorts of food. Milling of grains has resulted in loss of about six-sevenths of the vitamin content and an almost equal share of minerals. The machine age has reduced muscular work with corresponding reduction in calorie requirements.

FRUIT JUICES AND GASTRIC FUNCTION. The influence of canned grape, grapefruit, orange, pineapple, prune and tomato juice on gastric acidity, peptic activity and emptying time of the stomach has been studied. During the early part of digestion the *p*H of the gastric juice may be influenced directly by the acids of the fruit juice. At the height of the digestion there is no appreciable difference. With pineapple juice the minimal *p*H was reached in a shorter time than after the other fruit juices studied and the subsequent rise of *p*H was more marked. Peptic activity in the stomach was not seriously retarded by any of the fruit juices and was stimulated by pineapple juice. All of the fruit juices slightly delayed the stomach emptying time after a meal of carbohydrate, probably due to increased size of the meal.

American Journal of Diseases of Children

Vol. 61, May 1941

Phosphorus retention in children with chronic renal insufficiency: the effect of diet and of the ingestion of aluminum hydroxide. S. Freeman and W. M. C. Freeman.—p. 981.

American Journal of the Medical Sciences

Vol. 201, May 1941

*Vitamin C in the treatment of diabetes. L. B. Owens, J. Wright and E. Brown.—p. 636.

Some effects of iron on hemoglobin formation. W. M. Fowler and A. P. Barer.—p. 642.

*Vitamin C studies in the aged. H. A. Rafsky and B. Newman.—p. 749.

VITAMIN C IN DIABETES. Ascorbic acid was administered in 300, 600, and 1200 mg. daily doses to 16 controlled diabetic patients in various states of vitamin C nutrition. No constant objective improvement resulted. There was no weight gain or significant change in the insulin requirement.

VITAMIN C IN THE AGED. In a series of 25 so-called normal, aged individuals, who received comparatively large doses of cevitamic acid, only 2 showed a more or less constant saturation point. In the rest, high retention values were observed.

American Journal of Public Health

Vol. 31, April 1941

*Clinical manifestations of ariboflavinosis. V. P. Sydenstricker.—p. 344.

To Brighten Your Menus...

Tomatoes Tropical

Amount for 1 portion: 1 tomato slice	24 portions	60 portions
INGREDIENTS	AM'TS or WEIGHTS	AM'TS or WEIGHTS
Tomatoes	8	20
Firm bananas*	4	10
Salt	as desired	as desired
Cheese finely grated	¾ cup	2 cups
Paprika	as desired	as desired

**Use all-yellow or slightly green-tipped bananas*

Cut each tomato crosswise into three thick slices. Peel bananas and cut into very thin slices. Cover each tomato slice with overlapping slices of banana. Sprinkle with salt, cheese and paprika. Place on broiler rack about 5 inches below heat. Broil about 10 minutes, or until cheese is melted and lightly browned. Serve hot as an accompaniment to broiled chops or steaks.

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Vol. 31, May 1941

Minimum qualifications for nutritionists in health agencies. P. McIver.—p. 494.

ARIBOFLAVINOSIS. The signs of "pellagra *sine* pellagra" have been shown to be due to deficiency of riboflavin in the diet. Ariboflavinosis, like pellagra and beriberi, is a manifestation of B group avitaminosis. The specific signs probably result from a complex disturbance of the coenzyme functions of the B vitamins as a group, to which is added failure of the activity of riboflavin in intracellular oxidation. Riboflavin deficiency is characterized by photophobia and dimness of vision at a distance and in dim light; cheilosis, seborrheic lesions about the ears and nose, and a specific sort of glossitis. Superficial vascularization of the cornea is the earliest and most constant finding.

Archives of Internal Medicine

Vol. 67, April 1941

*The present status of nicotinic acid. V. P. Sydenstricker.—p. 746.

Liver and biliary tract: A review for 1940. C. H. Greene.—p. 867.

Vol. 67, May 1941

*Obesity: its pathogenesis, etiology and treatment. J. Bauer.—p. 968.

NICOTINIC ACID. The clinical manifestations of nicotinic acid deficiency are the result of disturbances of cellular nutrition when the available supply of nicotinic acid is insufficient for the adequate replacement of coenzymes. An important cause of rapid depletion of coenzymes is the excessive derivation of energy from carbohydrate. All known manifestations of deficiency of nicotinic acid are cured rapidly and completely by adequate, specific therapy.

OBESITY. The distribution of energy in the body plays as important a role in obesity as an imbalance between intake of food and expenditure of energy. Adipose tissue is a living and active part of the body with its own physio ogic and pathologic processes. The tendency of adipose tissue to accumulate fat varies widely in different parts of the body and in different persons. This is determined and influenced by an autonomous, an endocrine and a nervous factor. The treatment of obesity is chiefly dietary.

Archives of Pediatrics

Vol. 58, April 1941

*A clinical study of the use of liquid dextrin-maltose-dextrose carbohydrate in the newborn. M. Krost.—p. 243.

*Treatment of nephrosis with vitamin A and unsaturated fatty acid therapy. G. W. Caldwell.—p. 247.

Constipation. Report of its effects on 32 children. J. Schwartzman.—p. 251.

LIQUID DEXTRIN-MALTOSE-DEXTROSE CARBOHYDRATE. Liquid dextrin-maltose-dextrose carbohydrate is a perfectly safe and well-utilized carbohydrate for the feeding of newborn infants, yielding slightly less initial weight loss and a greater gain in weight than when dextri-maltose is fed. Though carbohydrates containing glucose are usually slightly more laxative, there were actually fewer stools in the liquid dextrin-maltose-dextrose group.

NEPHROSIS. The improvement noted in a nephrotic 7-year-old girl upon the administration of large doses of vitamin A and unsaturated fatty acids indicates that nephrosis in young children is a deficiency disease in addition to the infectious factor previously suspected. The unsaturated fatty acids contain an unknown substance which with vitamin A has a beneficial effect upon kidney function.

British Medical Journal

No. 4189, April 19, 1941

*Prothrombin deficiency in disease of the liver and bile passages and its treatment with synthetic vitamin K. J. Reid.—p. 4189.

No. 4190, April 26, 1941

Vegetables as food. Conference of nutrition experts.—p. 638.

PROTHROMBIN DEFICIENCY. Defective absorption of vitamin K due to absence of bile salts in the intestine is chiefly responsible for prothrombin deficiency in obstructive jaundice and biliary fistula prior to operation. Prothrombin deficiency after operation may be due to lack of vitamin K in the restricted postoperative diet. Routine preoperative administration of vitamin K is recommended.

Canadian Medical Association Journal

Vol. 44, April 1941

*The dietary management of intestinal tuberculosis. A. S. Kennedy, O. Snider, J. S. Hazen and C. McLean.—p. 380.

NEW DATA ON THE AVAILABILITY OF IRON IN MOLASSES

Chemical and biological assays prove more than 80% of abundant molasses-iron is assimilable

QUICK SUMMARY

RESULTS: New Orleans molasses, known to be one of the richest food sources of iron, has now been proven to contain iron of from 80% to 97% *availability.*

HOW TESTED: (A) Chemically and biologically[1]. (B) Clinically .

SUGGESTED USES: For child feeding where its high calorie value plus iron content make molasses a valuable dietary asset; and to provide extra iron during pregnancy.

AVAILABLE IRON CONTENT: 0.653 mgs. per tablespoon in Brer Rabbit Molasses — Gold Label grade. 1.078 mgs. per tablespoon in Brer Rabbit Molasses—Green Label grade.

SUGGESTED AMOUNT: Three or more tablespoonfuls daily. This may be taken plain, on bread, cereal, desserts or in milk. Physicians may vary the amount, depending on the iron need, age, condition and tolerance of the individual.

IN COMPARING iron-rich foods for the dietary it is helpful to know—besides total iron content—how much of this mineral is present in assimilable form.

To determine the availability of the iron content of NEW ORLEANS MOLASSES and to supply specific comparison with other food sources of iron, the makers of Brer Rabbit Molasses co-operated in carrying out chemical, biological and clinical research. A brief summary of results of the chemical and biological tests is reported here for the information of the medical profession.

THE MOLASSES USED IN ALL TESTS WAS BRER RABBIT NEW ORLEANS MOLASSES.

The chemical and biological tests[1] show availability of iron in Brer Rabbit Molasses to be over 90% in the Gold Label grade and in the Green Label grade over 80%.

Taste preferences for molasses differ. Brer Rabbit comes in two flavors to meet all requirements. If a dark, full-flavored molasses is desired, specify Green Label Brer Rabbit (Molasses "B" in table). If a light, mild-flavored molasses is wanted, specify Gold Label Brer Rabbit (Molasses "A" in table).

Because of its low cost and palatability, may we suggest that you recommend the use of Brer Rabbit New Orleans Molasses where a higher iron content in the dietary is desirable. Penick & Ford, Ltd., Inc., New Orleans, La.

TABLE[1]

	Total iron mg/100 gm	Per cent availability	Available iron mg/100 gm
MOLASSES "A"*	3.2	97	3.1
MOLASSES "B"**	6.0	85	5.1
BEEF LIVER	8.2	70	5.7
OATMEAL	4.8	96	4.6
APRICOTS (*dry*)	4.1	98	4.0
EGGS	3.1	100	3.1
WHEAT	5.0	47	2.4
RAISINS (*Muscat*)	3.0	62	1.9
PARSLEY	3.2	50	1.6
BEEF MUSCLE	3.0	50	1.5
OYSTERS	5.8	22	1.3
CABBAGE	1.8	72	1.3
MUTTON	5.1	24	1.2
LETTUCE	1.5	63	0.9
SPINACH	2.6	20	0.5

*Brer Rabbit—Gold Label **Brer Rabbit—Green Label

1. Am. J. Dig. Dis. Vol. VI, No. 7 (Sept.) pp. 459-62, 1939

ACCEPTED AMERICAN MEDICAL ASSN Council on Foods

*Management of the nutritional anaemia of infancy. K. L. McAlpine.—p. 386.

Vol. 44, May 1941

Peptic ulcer in children. O. M. Moore.—p. 462.
*The overweight child. L. M. Lindsay.—p. 504.

INTESTINAL TUBERCULOSIS. The best diet for relieving intestinal symptoms and for supplying nutrition in intestinal tuberculosis, as shown by gains in weight, or prevention of loss of weight, is a bland low-residue diet with sufficient protein, ample in minerals and vitamins, with 4 feedings per day. Supplies of vitamins and minerals have been obtained by the incorporation of cod liver oil, citrus fruit juices, tomato juice, and Pablum.

NUTRITIONAL ANEMIAS. The vitamin B complex incorporated in a special cereal and biscuits increased the hemoglobin content of normal children. The addition of other vitamins is not specific but contributes to the general well-being so essential to optimal hematopoiesis. Sunshine plays a part but ultraviolet irradiation has not gained a reputation in either the prevention or cure of the nutritional anemia of infancy.

OVERWEIGHT CHILD. Any child is considered overweight who is more than 20% above the average for age, height and sex. Treatment does not change the constitution of the patient nor correct a disturbance in the endocrine system. A specific diet of 1500 or 2000 calories will usually keep the weight stationary or even reduce weight. Increased activity should be encouraged.

Food Research

Vol. 6, March-April 1941

Correlation of subjective scoring with sugar content of frozen peas. E. L. Blanchard and M. L. Maxwell.—p. 105.
Incidence and significance of the colon-aerogenes group on pecan meats. M. Ostrolenk and H. Welch.—p. 117.
*Relation of time and temperature to growth and enterotoxin production of staphylococci. M. Segalove and G. M. Dack.—p. 127.
Retention of vitamins C and A in glass-packed foods. C. R. Fellers and R. E. Buck.—p. 135.
*Observations on carotene analysis of vegetables and fruits as a basis for prediction of their vitamin A value. M. C. Smith and L. Otis.—p. 143.
Preparation and estimation of crude citrin solutions (vitamin P) from lemons. A. J. Lorenz and L. J. Arnold.—p. 151.
*Bacterial studies of fresh crabmeat. L. C. Tobin and C. S. McCleskey.—p. 157.
Thiamin content of dried pork muscle. E. H. Hughes.—p. 169.
*Effect of cooking on riboflavin content of chicken meat. A. Z. Hodson.—p. 175.
*An outbreak of botulism caused by home-canned tomatoes. G. S. Slocum, H. Welch and A. C. Hunter.—p. 179.
*Chemical and histological studies of the disintegration of cell-membrane materials in vegetables during cooking. J. I. Simpson and E. G. Halliday.—p. 189.
*A study of the sensitiveness of prospective food judges to the primary tastes. D. Knowles and P. E. Johnson.—p. 207.

Vol. 6, May-June 1941

*Loss of vitamin C during cooking of rhubarb. E. J. Brown, H. Schuele, and F. Fenton.—p. 217.
Effect of metal skewers on cooking time and tenderness of beef. S. Cover.—p. 233.
Riboflavin content of pork muscle. N. R. Ittner and E. H. Hughes.—p. 239.
Utilization of skim milk and whey in precooked dried soup. G. A. Ramsdell and B. H. Webb.—p. 265.

STAPHYLOCOCCI. Certain foods may constitute a selective medium for the growth of staphylococci, although in their manufacture care has been taken to control these organisms. When such foods reach the retailer or consumer they may be kept under conditions of time and temperature favorable for staphylococcus-enterotoxin production. Some foods require a long period of cooling at the usual temperature of refrigeration in order to obtain a temperature throughout which will be effective in preventing the growth of staphylococci. Enterotoxin was demonstrated in a culture grown for three days at 18 degrees C. and for 12 hours at 37 degrees C. It was not produced in cultures grown for shorter periods at these temperatures.

CAROTENE ANALYSIS AND VITAMIN A VALUE. Deeply pigmented carrots containing 140 micrograms per gram were found to have little more than twice the vitamin A value of pale orange carrots, which contained less than one-tenth as much carotene by analysis. A wide variation in the efficiency of utilization of carotene from different plant sources for the purpose of storage in the liver has resulted from the feeding of equivalent amounts of carotene from the following foods: apricots, asparagus, broccoli, carrots, endive, pumpkin, spinach, water cress, yams, and pure beta carotene. The yellow foods are especially inefficient in promoting vitamin A reserves in proportion to their carotene content.

Meat... and Nutrition in the Defense Program

According to Thomas Parran[1] of the United States Public Health Service, 40 per cent of our population is on a diet which is lacking in meat, fruits, vegetables, and dairy products. This important statement by the chief health officer of the United States government reaches into every home, since adequate nutrition is the first line of defense of a vigorous, healthy nation.

Since the present World War began in September 1939 it has become increasingly obvious that the civilian population as well as the men in the armed forces, in order to endure total war, must have the benefit of a diet adequate in all essential nutrients.

Morale, stamina, courage, and endurance depend to a large extent on good nutrition. An adequate food supply is as important a part of modern warfare as the machines with which it is waged.

Since the first World War the food needs of man have been ascertained with a higher degree of accuracy. Today they can be expressed in units of precise measurement. Foods have been analyzed and their content of essential nutrients recorded. Meat has been found to contain vitamins undreamed of then, not only thiamine and riboflavin but also nicotinic acid, pyridoxin, pantothenic acid, and probably all the other members of the B complex.

The proteins of meat provide all the essential amino acids needed for the building and maintenance of the body tissues. The minerals of meat—iron, copper, and phosphorus—are valuable in maintaining the body's mineral reserve. In addition, meat enhances the meal and makes the other foodstuffs comprising it more acceptable.[2]

1. Parran, Thomas, Jr.: Nutrition and National Health, Technology Rev. *42*:323 (June) 1940.

2. Council on Foods, Accepted Foods and Their Nutritional Significance, Chicago: American Medical Association, 1939, p. 216.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute
CHICAGO

(In writing to advertisers, please mention the journal—it helps.)

That ALL Uncle Sam's Children

FOOD-ENERGY for active living is supplied by NUCOA as generously as by any other churned spread for bread. And the saving on each pound of NUCOA is substantial—approximately enough to pay for a quart of milk! So, not only is NUCOA nutritious, but it helps stretch the food dollar to include more of other protective foods.

THE APPETIZING FLAVOR of NUCOA—on bread, as seasoning for vegetables, or when used for shortening or frying—enriches simple meals. Yet it's inexpensive to cook with NUCOA! NUCOA has wonderful texture—easy to cream and to spread. And it always tastes sweet and fresh, for it is made on order only—never held in storage.

Nourishing NUCOA

(In writing to advertisers, please mention the journal—it helps.)

May Have a Nourishing Spread for Their Bread . . .

the makers of NUCOA have pioneered for a quarter of a century to produce this Modern Margarine—a delicious, high-food-value spread at low cost.

★

Now—in the crusade for Better National Nutrition—NUCOA increases its benefits . . . gives you in every pound more than *9,000 units of protective VITAMIN A!*

NUCOA'S PROUD RECORD OF "FIRSTS"

FIRST margarine to be made wholly with vegetable oils
FIRST nationally distributed margarine to be made with only *American* vegetable oils
FIRST margarine to be triple-wrapped
FIRST to have store-door delivery—always fresh
FIRST to introduce the handy, wafer-type coloring
FIRST to be nationally advertised
FIRST in sales popularity
FIRST to add VITAMIN A
AND NOW...*NUCOA gives more than 9,000 units of VITAMIN A in every delicious pound!*

WE DIETITIANS congratulate NUCOA on guaranteeing a uniform Vitamin A content of 9,000 units in every pound, winter and summer. This makes NUCOA a good "protective Vitamin A" food. With its pure *vegetable* oils churned in fresh pasteurized skim milk (both products of American farms) NUCOA is delicious and very different from the old-time "oleos."

ONE OF AMERICA'S GOOD "PROTECTIVE VITAMIN A" FOODS

BACTERIOLOGICAL STUDIES OF CRABMEAT. The presence of *E. coli* in crabmeat is considered to be evidence of insanitary conditions in the production or handling of the meat. The three major sources of *E. coli* in crabmeat were the hands of the employees, the dipping brine, and the ice used for cooling the brine and for icing the barrels of meat. The possibility of the destruction of coliform organisms in packaged crabmeat by means of a pasteurization process which does not adversely affect the texture and flavor has been demonstrated. The period of safe storage—at 1 to 5 degrees C. (33.8 to 41 degrees F.)—of crabmeat was increased at least 50% by the acidification and pasteurization processes.

EFFECT OF COOKING ON RIBOFLAVIN CONTENT CHICKEN MEAT. None of the cooking processes (frying, broiling, roasting and stewing) destroyed a measurable amount of the riboflavin in the samples studied.

BOTULISM IN HOME-CANNED TOMATOES. Two persons who ate home-canned tomatoes slightly "off-odor" developed symptoms of botulism and died. The tomatoes were probably canned by adding boiling water to the peeled tomatoes in freshly boiled jars, placing the sealed jars in a boiling-water bath, and then removing the bath from the stove and allowing the bath and contents to cool to room temperature. Examination of the tomatoes remaining in the jar revealed the presence of *Clostridium botulinum*, type B, and its toxin.

COOKING VEGETABLES. Evidence has been obtained by chemical, histological, and microchemical means of changes which occur in cell-membrane materials of carrots and parsnips during cooking. The alterations that have been observed indicate a relationship between the disintegration of the tissue and the change in texture of the vegetable when it is cooked.

FOOD JUDGING. There probably is no correlation between the ability to identify the primary tastes and age, experience in judging, and smoking.

VITAMIN C LOSS IN COOKING RHUBARB. Rhubarb grown on the same plot of ground contained about .06 to .07 mg. vitamin C per gram of peeled rhubarb. The top half of the stalk of each of four varieties contained almost twice as much vitamin C as the lower half. Rhubarb baked 30, 35, and 40 minutes retains about 88, 80, and 73 per cent, respectively, of its vitamin C whether the rhubarb was peeled or unpeeled. The addition of sugar did not affect the vitamin C retention in the baked rhubarb. Cooking in an open enamel pan and in an open glass stew pan gave a vitamin C retention of 84 to 87 per cent. Covering the glass stew pan increased the retention of vitamin C to about 92 per cent.

Hygeia

Vol. 19, April 1941

*Ptomaine poisoning doesn't exist. D. V. Whipple.—p. 285.
Let the scales check your calories. A. Lautz.—p. 307.
The white potato.—p. 311.

Vol. 19, May 1941

*Why teeth decay. D. C. Lyons.—p. 363.
All life depends on food. T. Park.—p. 376.
Insulin crutches. M. K. Stabler.—p. 379.
Food instead of vitamin pills. A. Lautz.—p. 400.

PTOMAINE POISONING. Ptomaines are produced by bacteria in decomposing protein. The taste and smell are distasteful but they produce no ill effects in the human body. Food poisoning occurs when poisonous food is eaten, when bacteria has produced poisonous substances in wholesome food, when chemical poisons have been accidentally introduced into food or when harmful bacteria has been allowed to grow in food. Poisons exist in the plant and animal kingdom. Certain tropical fish are poisonous always, others like the sturgeon and pike are poisonous during the spawning season. Mussels are poisonous at times. Any food much handled before eaten is apt to become contaminated. If infected food is thoroughly cooked, all harmful bacteria will be killed.

WHY TEETH DECAY. Diet is of extreme importance during the formative periods of the teeth but there is no evidence that a dietary change later in life is of benefit. The constant use of hard candies may produce a rapid, progressive type of tooth decay. Heredity or inherited influences may affect caries resistance. There is a relationship between the type of bacteria found in the mouth and the extent of caries.

RICH IN
Vitamin B_1
VACUUM PACKED
Embo
PALATABLE WHEAT EMBRYO

Contains other natural B Complex factors

Physicians have increasingly found Embo a valuable dietary supplement during pregnancy and lactation; in infant feeding; as a dietary corrective in many cases of simple or complex B-vitamin deficiency; in post-operative diets; and for pathologic cases where avitaminosis-B is indicated.

Embo is selected high-grade wheat germ, lightly toasted to improve flavor and keeping qualities, vacuum-packed for freshness. It is rich in *natural* thiamin (Vitamin B_1—280 Int. Units per oz.), a good source of riboflavin, is relatively rich in phosphorus and in iron (contains 7 mg. iron per 100 grams—nearly as much as beef liver), contains approximately 30% wheat proteins, and the oil natural to wheat germ (11.5%). Also contains the other B Complex factors native to wheat germ. Please send for sample and literature.

GENERAL MILLS, INC.
MINNEAPOLIS, MINNESOTA

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

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Crystal Clear Salt and Pepper Shaker Tops

By the Makers of the famous CAFATRAYS

Look Just Like Glass—
A New Plastic Wonder

Light, Inexpensive,
Durable, Beautiful

Three sizes—to fit
Most Standard Bottles

These new Chelsea Salt and Pepper Shaker Tops are made of a Crystal-Clear plastic material that looks exactly like crystal glass. In addition to the beauty of these new Tops, they provide a great economy, since there is no plating of any kind to wear away. Unlike glass, these Tops do not chip off in the food or condiments. They are light as a feather, and may be washed in the dishwashing machine, since they are not affected by such temperatures—even as high as 190° F.

Ask your equipment dealer—he will be glad to order samples sent to you.

CHELSEA PRODUCTS - 281 11th AVENUE, NEW YORK CITY
Makers of the famous CAFATRAYS

Journal of the American Dental Association

Vol. 28, April 1941

*Correlated analysis of the dental caries problem. C. B. Branson.—p. 618.

Vol. 28, May 1941

Specific nutritional diseases. R. L. Haden.—p. 726.

CARIES. The fundamental, natural protector of the teeth against the occurrence of dental caries is a normal saliva, in chemico-physiologic equilibrium. Saliva cleanses the teeth of all fermentable debris, breaks up mucinous dental plaques and neutralizes any acids. Dental caries may be due to a derangement of the salivary function. Sugar stimulates the saliva to an increased flow of heavy and viscid mucus.

Journal of the American Medical Association

Vol. 116, April 5, 1941

Our population. Editorial.—p. 1526.

Vol. 116, April 12, 1941

*Alcoholic polyneuritis: An evaluation of the treatment at the Boston City Hospital from 1920 through 1938. M. R. Brown.—p. 1615.

Vol. 116, April 19, 1941

*Antepartum use of vitamin K in the prevention of prothrombin deficiency in the newborn. G. P. Bohlender, W. M. Rosenbaum and E. C. Sage.—p. 1763.
*Physical defects of drafted men. Editorial.—p. 1775.
*Zinc and tissue enzymes. Editorial.—p. 1775.

Vol. 116, April 26, 1941

*Treatment of amyotrophic lateral sclerosis with vitamin E. P. G. Denker and L. Scheinman.—p. 1893.
*Vitamin E and vitamin B_6. J. W. Ferrebee, W. O. Klingman and A. M. Frantz.—p. 1895.

Vol. 116, May 10, 1941

*Amino acids as a source of nitrogen for allergic infants. L. W. Hill.—p. 2135.
*Avitaminotic dysentery. Editorial.—p. 2169.

Vol. 116, May 24, 1941

Physical fitness. E. Jokl and E. H. Cluver.—p. 2383.
Fat metabolism in diabetes mellitus. Editorial.—p. 2403.

Vol. 116, May 31, 1941

The diagnosis of hypothyroidism in childhood. L. Wilkins and W. Fleischmann.—p. 2459.

ALCOHOLIC POLYNEURITIS. In 236 patients with uncomplicated alcoholic polyneuritis the average time spent in the hospital under intensive vitamin therapy was the same as when the house diet was given. Eight receiving from 1 to 2 pints of whisky in addition to intensive vitamin therapy, including parenteral liver, stayed a longer time in the hospital than those on the house diet and no whisky.

PROTHROMBIN DEFICIENCY. Newborn infants normally show a considerable rise in prothrombin time during the first week of life. Vitamin K (4-amino-2 methyl-1-naphthol hydrochloride) given intravenously to the mother before delivery prevents prothrombin deficiency in the newborn.

PHYSICAL DEFECTS OF DRAFTED MEN. Statistical data on the physical defects observed in men examined during the draft of 1917–1918 shows that 21.3% were rejected, 9.9% were placed in limited service groups and 52.1% had defects; 40.8 per thousand drafted men had defective vision, 38.7 had crippled or paralyzed members, 32.4 had flat feet, 29.6 were underweight, 24.2 had defective or deficient teeth and 12 were mentally defective.

ZINC AND TISSUE ENZYMES. Zinc is a constant ingredient of carbonic anhydrase which catalyzes both the breakdown and the synthesis of carbonic acid into carbon dioxide and water. There is little likelihood of a lack of zinc in the diet of human beings.

SCLEROSIS. Treatment with large doses of vitamin E did not produce valuable therapeutic results in 11 patients with lateral sclerosis.

VITAMINS E AND B_6. These vitamins in large doses failed to influence the course of either amyotrophic lateral sclerosis or muscular dystrophy.

AMINO-ACIDS IN DIET. Thirty-six infants were satisfactorily fed for 3 months on a synthetic food which contained no protein other than that in the small amount of brewer's yeast in which more than 60% of the nitrogen was in the form of amino-acids. No available milk-free food for infants is satisfactory for all allergic cases.

AVITAMINOTIC DYSENTERY. Monkeys almost invariably develop gastro-intestinal disturbances when vitamin A is withdrawn from the diet. While the dysentery bacillus was directly

Q. Are the proteins of canned meat of high biological value?

A. Oh yes. Canning does not influence the biological values of proteins. And, of course, the proteins of meats are excellent sources of the essential amino acids. (1)

(1) 1939. Accepted Foods and Their Nutritional Significance, Council on Foods of the American Medical Association, Chicago.

The Seal of Acceptance denotes that the nutritional statements in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.

responsible for the diarrhea, vitamin A is the essential etiologic factor. Monkeys deficient in parts of the vitamin B complex usually develop anemia, leucopenia, gingivitis and diarrhea. The essential factor is unidentified but is present in dried yeast and in crude liver extract. If nutritional deficiency is the essential etiologic factor in human dysentery, the path to control is apparent.

Journal of Biological Chemistry

Vol. 138, April 1941

*Choline in the nutrition of chicks. D. M. Hegsted, R. C. Mills, R. C. Elvehjem and E. B. Hart.—p. 459.
*Methionine in the diet of the chick. A. A. Klose and H. J. Almquist.—p. 467.
*The B vitamins and fat metabolism. IV. The synthesis of fat from protein. E. W. McHenry and G. Gavin.—p. 471.
*The choline content of rats on various choline-free diets. H. P. Jacobi, C. A. Baumann and W. J. Meek.—p. 571.

Vol. 139, May 1941

*Identification of the mouse antialopecia factor. D. W. Woolley.—p. 29.
*Effect of pregnancy on the phosphorus turnover of the skeleton of rats maintained on normal and rachitogenic diets. M. L. Manly and S. R. Levy.—p. 35.
*Distribution of nitrogen and protein amino acids in human and in cow's milk. E. F. Beach, S. S. Bernstein, O. D. Hoffman, D. M. Teague and I. G. Macy.—p. 57.
*The carotenoid and provitamin A content of the watermelon. L. Zechmeister and A. Polgar.—p. 193.
*The influence of thiamine deficiency on citric acid excretion. A. H. Smith and C. E. Meyer.—p. 227.

CHOLINE IN CHICK NUTRITION. Choline is essential for growth and the prevention of perosis in growing chicks. Choline-deficient chicks did not show fatty livers at 4 weeks of age and bone phosphatase values were normal in chicks suffering from perosis due to choline deficiency.

METHIONINE. Methionine is essential for the growth of the chick. Homocystine and choline together can effectively replace methionine in the diet of the chick.

FAT SYNTHESIS FROM PROTEIN. Thiamin causes the synthesis of fat from carbohydrate but not from protein. Pyridoxin in combination with thiamin prevents a reduction of body fat in rats maintained on a protein diet. The synthesis of fat from protein is clearly evident when pyridoxin, thiamin, riboflavin, and pantothenic acid are supplied. Pyridoxin is essential for the metabolism of protein.

CHOLINE CONTENT OF RATS. The choline content of rats on choline-free diets increased with the weight of the animals. Choline synthesis was reduced somewhat on a high fat diet, but other variations in the low choline diet—high protein, high cystine, and a change of protein, as well as the addition of choline—were without marked effect on the choline content of the tissues.

ANTIALOPECIA FACTOR. Alopecia which developed in young mice raised on a highly purified diet was cured by addition of inositol or phytin to the ration. Inositol has been isolated and identified in liver concentrates.

PHOSPHORUS IN PREGNANCY. Pregnancy has no significant effect, either alone or in combination with dietary deficiency, on the marked phosphorus distribution in the maternal skeleton.

AMINO-ACIDS IN MILK. Samples of human and cow's milk were examined for their lipid and mineral content and the distribution of total nitrogen in casein, whey protein, and nonprotein nitrogen. In the proteins of cow's milk the preponderance of sulfur is in the form of methionine, with very little in the form of cystine. In human milk the sulfur is about equally divided between cystine and methionine.

PROVITAMIN A. The provitamin A content of watermelon pulp is about 0.5 mg. beta-carotene per kg.

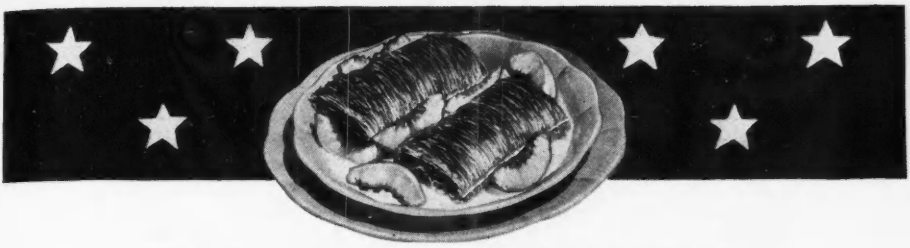
THIAMIN DEFICIENCY AND CITRIC ACID. A deficiency of thiamin in the diet results in decreased excretion of citric acid in the urine. This is correlated with the diminished intake of food rather than with absence of thiamin *per se*.

Journal of the Missouri State Medical Association

Vol. 38, May 1941

*The irritable colon. J. M. Rumsey.—p. 152.

IRRITABLE COLON. The diet for irritable colon should be free from all irritating foods and low in residue. Bran and highly spiced and seasoned foods should be avoided. Fruits, vegetables and milk should be eliminated at first. Milk is not a low-residue food and is poorly tolerated.



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An Excellent Combination In The Campaign Against Dietary Deficiencies

★ An appetizing, inexpensive way to get a more complete quota of eight important nutrients is National Biscuit Shredded Wheat and milk. As an instance, take Vitamin B_1. Two National Biscuit Shredded Wheat afford a minimum of 60 I.U. of this vitamin, as Nature provides it. A cupful of milk added to the dish gives approximately 38 I.U. This simple breakfast, therefore, contains a generous part of the daily requirement. In addition, the combination has an appreciable content of the seven other nutrients shown in the chart below.

Because National Biscuit Shredded Wheat is made of 100% whole wheat, including the wheat germ, not highly milled, it affords all the energy of the whole grain, as well as vitamins and minerals in Nature's own way. When fruit is added to the dish, of course you get even more of these nutrients.

Whole wheat, in this form, with milk, constitutes an excellent "stand-by" food in the National Fitness campaign to correct dietary deficiencies—with nutrients that are vital to the Nation's fitness.

Baked by "NABISCO"
NATIONAL BISCUIT COMPANY
Address: New York, N. Y.

Important Nutritional Values

Analyses show the following nutrients *naturally* present in 2 National Biscuit Shredded Wheat with a cupful of milk:

VITAMIN B_1 . . . Over 1/3 daily min. adult requirement
CALCIUM . . . . . Over 1/3 daily min. adult requirement
PHOSPHORUS . . Over 1/2 daily min. adult requirement
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There is also a generous part of the daily energy requirement (CARBOHYDRATES and PROTEINS) and other nutritional necessities including VITAMIN A and VITAMIN G.

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It should not be added until all distress has subsided. Cream and butter may be used in liberal quantities. The low-residue diet is constipating.

Journal of Nutrition

Vol. 21, April 1941

*Arsenic and goiter. G. R. Sharpless and M. Metzger.—p. 341.
*The utilization of the calcium of milk by adults. H. Breiter, R. Mills, J. Dwight, B. McKey, W. Armstrong and J. Outhouse.—p. 351.
*Fasting catabolism and food utilization of magnesium deficient rats. M. Klieber, M. D. D. Boelter and D. M. Greenberg.—p. 363.
The rate of absorption of various fatty acids by the rat. H. J. Deuel, L. Hallman and A. Reifman.—p. 373.
A quantitative study of vitamins in the rumen content of sheep and cows fed vitamin-low diets. IV. Pantothenic acid. L. W. McElroy and H. Goss.—p. 405.
*Urinary excretion of thiamine on high fat and high carbohydrate diets. W. M. Cahill.—p. 411.
*The optimum level of protein intake for the growth and fattening of swine. R. C. Miller and T. B. Keith.—p. 419.

Vol. 21, May 1941

*The effect of certain carcinogens on vitamin A in the liver. C. A. Bauman, E. G. Foster and P. S. Lavik.—p. 431.
*The sparing action of thiamine on body tissue catabolism. B. Sure and M. Dichek.—p. 445.
*Riboflavin as a factor in economy of food utilization. B. Sure and M. Dichek.—p. 453.
*Glycogen formation in liver and muscle from glucose and fructose after extreme muscular exhaustion. P. E. Nutter and J. R. Nutter.—p. 489.
*Studies on the vitamin C metabolism of four preschool children. M. L. Hathaway and F. L. Meyer.—p. 503.
*A dietary study of vitamin C nutrition in a group of school children. Part II. Dietary evaluation. E. Murphy.—p. 527.

ARSENIC AND GOITER. Arsenic fed in nontoxic amounts to rats had a slight but not significant goiterogenic effect; .02% in the diet more than doubled the iodine requirement.

CALCIUM UTILIZATION. In 7 healthy adults subjected to an experiment to determine their utilization of the calcium of milk, daily calcium intakes of 248, 264, 278, 274, 231, 309 and 289 mg. maintained the subjects in negative balance. With milk added, the calcium intakes were 451, 568, 574, 580, 498, 603 and 873 mg. with resulting balances of −36, +5, +24, −13, −39, −5 and −22 mg. No explanation could be found for the division of the subjects into high and low utilizers.

METABOLISM AND MAGNESIUM DEFICIENCY. Five rats fed a magnesium-deficient diet gradually lost appetite and after 60 days ceased to grow. The magnesium content of the carcasses of the deficient rats was only one-half that of the control rats, but there was no significant difference between the water, ash, fat, and protein content of magnesium-deficient and control rats. Magnesium deficiency decreases the efficiency of energy and protein utilization to approximately the same extent and causes an increased loss of unoxidized material in the excreta, or increases the calorigenic action of the food.

THIAMIN EXCRETION. In a study of the urinary thiamin excretion of adult individuals on comparable high fat and high carbohydrate diets, even great alterations in the ratio of fat to carbohydrate in diets of the same thiamin content did not significantly affect the urinary thiamin excretion. A study of the excretion of thiamin administered orally after a period of depletion on comparable high fat and high carbohydrate diets also revealed no differential influence of fat or carbohydrate on the urinary thiamin output.

PROTEIN LEVELS FOR SWINE. The optimal quantity of protein in the ration for pigs for the growth span from 40 to 210 lb. was found to be from 15 to 17%.

VITAMIN A AND CARCINOGENESIS. The livers of rats with spontaneous tumors contained more vitamin A than the livers of nontumorous controls. Decreased vitamin A is not a necessary prerequisite to tumor formation.

THIAMIN AND TISSUE CATABOLISM. Thiamin deficiency produces inanition with a loss in body weight. Greater intakes of thiamin produce a sparing influence on body tissue catabolism. This may be associated with the role of thiamin in intermediate carbohydrate metabolism.

RIBOFLAVIN AND FOOD UTILIZATION. Riboflavin produces a pronounced effect on economy of food utilization for synthesis of body tissues. Increases in body gains were derived mainly from fats and to a lesser but appreciable extent from proteins.

CHECKERBOARD TACTICS

Like men on a checkerboard, many people jump back and forth between the squares of optimum and minimum nutrition. Both the game of nutrition and the game of checkers are a matter of some luck . . . but more skill. To maintain desired health states it is well to depend upon the skill of application of modern nutritional knowledge. Maintenance of high standard dietaries can be accomplished with surprising ease if the simple rules of nutrition are observed.

COCOMALT finds its place in this dietetic scheme of things for both normal and therapeutic diets. Its rich flavor urges young and old to drink milk. COCOMALT contains calcium, phosphorus, iron . . . Vitamins A, B_1, D and G . . . quick energizing elements . . . body building nutrients. Recent studies and references* confirm these facts.

Cocomalt is used more and more by physicians in diets for growing children and adults; for pregnancy and lactation; malnutrition, anorexia, pre- and post-operative patients, convalescence, febrile diseases and gastro-intestinal conditions.

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*Arch. of Ped.—56: Nov. 1939; Med. Record—Aug. 21, 1940; Med. Record—150:1:1939; Arch. of Ped. 57:448 (July) 1940; Med. Record—149: Jan. 1939; Surgery—6:1:1939.

GLYCOGEN FORMATION AFTER EXHAUSTION. Fructose was absorbed at a slower rate than glucose by the fatigued rat, but both sugars showed a falling off in absorption rate as the time was prolonged. Fructose was superior to glucose in rebuilding the liver glycogen stores during the first hour of recovery after exhausting fatigue, approached glucose in activity in the liver in the second hour and became more effective than glucose in the third hour.

VITAMIN C IN PRESCHOOL CHILDREN. A daily intake of 31 mg. ascorbic acid was the marginal level to ensure tissue saturation in 4 children and was not related to sex, age or body weight.

VITAMIN C IN CHILDREN'S DIETS. Analysis of 76 fall and 63 spring diet records showed that only one child in 7 attained the minimal dietary standard of one good vitamin C food daily. Losses during cooking, according to the techniques employed in the region, were as follows: for potatoes, 27 to 55%; for cabbages, 46 to 67%; for rutabagas, 14 to 50%; and for fiddlehead greens, 29 to 56%. Forty-five and 63% of the children showed plasma ascorbic acid values of less than 0.40 mg. %, while 32 and 51% showed oral inflammation.

Journal of Pediatrics

Vol. 18, April 1941

*Clinical studies with vitamin K in newborn infants. P. S. Astrowe and E. S. Palmerton.—p. 507.

Vol. 18, May 1941

*The urinary excretion of thiamine in normal children. R. Z. Benson, M. Witzberger and L. B. Slobody.—p. 617.

VITAMIN K. Clinical studies on newborn infants showed that administration of vitamin K in the first 24 hours inhibited the normal upward swing in prothrombin clotting time. Mothers receiving vitamin K 12 hours before delivery transmit it to their infants. No relationship could be established between the mother's diet and the prothrombin level of the infant.

URINARY EXCRETION OF THIAMIN. The urinary excretion of thiamin in 22 normal children between 4 and 10 years of age, ranged from 92 mcg. to 602 mcg. daily and averaged 268 mcg. An intake of 45 mcg. of thiamin per 100 calories, or 990 mcg. daily, provided adequately for excellent health. The average amount of thiamin excreted was 27.2% of the intake.

New York State Journal of Medicine

Vol. 41, April 15, 1941

*Avitaminosis A. H. G. Rapaport and D. Greenberg.—p. 879.

AVITAMINOSIS. Normal vision is dependent on the presence in the retina of an adequate supply of visual purple, considered to be identical with vitamin A. When the eye is exposed for a few minutes to bright light, some of the visual purple is destroyed by bleaching. The acuity of vision as measured by the ability to see dimly illumined objects in the dark is lessened. Acuity of vision is further depressed in persons deficient in vitamin A. In a group of 100 afebrile children tested with the biophotometer, 60% gave a normal test, 11% were "borderline" and 29% showed a definite deficiency in vitamin A.

Public Health Nursing

Vol. 33, April 1941

Recent research in nutrition. E. Robb.—p. 216.

Vol. 33, May 1941

Malnourished children in the school. G. M. Wheatley.—p. 300.

Public Health Reports

Vol. 56, April 11, 1941

*Domestic water and dental caries. II. A study of 2,832 white children, aged 12–14 years, of suburban Chicago communities, including lactobacillus acidophilus studies of 1,761 children. H. T. Dean, P. Jay, F. A. Arnold and E. Elvove.—p. 761.

Vol. 56, April 18, 1941

Studies on trichinosis. XIII. The incidence of human infection with trichinae as indicated by post-mortem examinations of 3,000 diaphragms from Washington, D. C., and 5 eastern seaboard cities. K. B. Kerr, L. Jacobs and E. Cuvillier.—p. 836.

WATER AND DENTAL CARIES. A study of 8 suburban Chicago communities disclosed a negative correlation between the fluoride concentration of the public water supply and the dental caries experience of children continuously exposed to such waters. Using the proximal surface of the 4 superior permanent incisors as a basis of measurement, there was 14.3 times as much dental caries in the 1,008 children from

KARO FORMULAS FOR NORMAL INFANTS

AGE—TWO WEEKS
Milk.....10 ozs.
Water.....10 ozs.
Karo syrup..... 2 tbs.
3 ozs. every 4 hrs.—6 feedings

AGE—ONE MONTH
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Water.....13 ozs.
Karo syrup.....2½ tbs.
4 ozs. every 4 hrs.—6 feedings

AGE—TWO MONTHS
Milk.....15 ozs.
Water.....13 ozs.
Karo syrup..... 3 tbs.
4½ ozs. every 4 hrs.—6 feedings

AGE—THREE MONTHS
Milk.....17 ozs.
Water..... 9 ozs.
Karo syrup..... 3 tbs.
5 ozs. every 4 hrs.—5 feedings

AGE—FOUR MONTHS
Milk.....20 ozs.
Water.....11 ozs.
Karo syrup.....3½ tbs.
6 ozs. every 4 hrs.—5 feedings

AGE—FIVE MONTHS
Milk.....23 ozs.
Water.....11 ozs.
Karo syrup..... 4 tbs.
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Water.....10 ozs.
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The amount of Karo in each formula is optional. During the summer, it may be reduced according to the baby's digestive reaction.

"A FORMULA of whole cow's milk, carbohydrate and water may be calculated for the individual infant according to the following requisites:

(1) The amount of cow's milk necessary will be 1.5 to 2.0 ounces per pound (100 to 130 cc per kilo) of expected body weight per day; or, one-half to two-thirds of the total calories required for the infant.

(2) The amount of added Karo syrup required will be about one-tenth of the quantity of milk used, i.e., 0.15 to 0.2 ounces per pound (0.1 to 1.13 grams per kilo) of expected body weight per day, or one-third to one-half the total calories required for the infant.

(3) The total caloric value of the formula should be approximately 50 to 55 calories per pound (110 to 115 calories per kilo) of body weight per day.

(4) The amount of water added to the formula will be two to three ounces per pound (130 to 200 cc per kilo) of body weight per day; and the amount of water added to the formula for the 24-hour period depends upon the degree of dilution required to render the mixture digestible.

(5) The amount of formula offered at a feeding during the first few months is expressed by the rule—Age in months plus two ounces at four hour intervals."

KUGELMASS:
"*Newer Nutrition in Pediatric Practice.*" 1940.

CORN PRODUCTS SALES COMPANY
17 Battery Place, New York City

Evanston, Oak Park, and Waukegan as in the 1,421 children from Elmhurst, Maywood, Aurora, and Joliet. Differences in the counts of L. acidophilus in the saliva corresponded to the difference in dental caries.

Science

Vol. 93, April 25, 1941

Plant research and human welfare. E. C. Auchter.—p. 385.
*Nutritional factors concerned in rusting of albino rats. H. S. Owens, M. Trautman and E. Woods.—p. 406.

Vol. 93, May 2, 1941

*The importance of microorganisms in vitamin research. R. J. Williams.—p. 412.
The mouse antialopecia factor. G. J. Martin.—p. 422.

Vol. 93, May 9, 1941

*Diabetes and inflammation. V. Menkin.—p. 456.

Vol. 93, May 23, 1941

*Inositol and spectacled eye in rats. P. L. Pavcek and H. M. Baum.—p. 502.

Vol. 93, May 30, 1941

The biotin content of tumors and other tissues. P. M. West and W. H. Woglom.—p. 525.

NUTRITIONAL FACTORS IN RUSTING OF RATS. Rustiness can be produced in the albino rat provided choline or pantothenic acid is omitted from the diet. It can be prevented if the diet is supplemented by 40 mcg. pantothenic acid and by 20 mg. choline. The liver plays an important role in their metabolism.

MICRO-ORGANISMS IN VITAMIN RESEARCH. Yeast plants require a mixture of "B vitamins" for their proper nutrition. Pantothenic acid is required by all animals which have been tested. Pyridoxin (pure vitamin B_6) is an effective stimulator of yeast growth. Biotin, formerly called vitamin H, also stimulates yeast growth. Inositol is a vitamin required by the white mouse. Riboflavin does not affect yeast growth in any striking way. Yeasts and other micro-organisms have been used in the discovery of 4 out of 7 of the recognized members of the vitamin B complex. The B vitamins are unusually important for all forms of life in contrast to the other vitamins which appear not to be universally distributed.

DIABETES AND INFLAMMATION. The mechanism of enhanced diabetes with inflammation is referable to an increased proteolysis in the inflamed area. The rise in protein breakdown processes is correlated both with gluconeogenesis, and with increased severity of the inflammatory reaction. The surplus glucose formed locally gradually diffuses into the circulation.

INOSITOL AND SPECTACLED EYE. Inositol may be the factor concerned with the regeneration of hair in "spectacled eye" in rats. Inositol also plays a role in the growth of the rat.

Scientific Monthly

Vol. 52, May 1941

*Vitamins and senescence. A. F. Morgan.—p. 416.

VITAMINS AND SENESCENCE. Deficiency of the anti-gray hair vitamin causes consistent damage to the adrenal glands, thyroids and sex glands. On recovery, the damage is repaired but scars are still evident. Administration of thyroid and adrenal cortical extracts produced a slow darkening of the grayed fur of vitamin-deficient rats but did not benefit the animals otherwise. The coal-black, long curly hair of cocker spaniel pups turned gray at the roots when given a diet deficient in the filtrate factor. Molasses, whole wheat and wheat bran contain the filtrate factors.

Southern Medical Journal

Vol. 34, April 1941

*Neural myatrophy and vitamin E. W. de Gutierrez-Mahoney.—p. 389.
*Common nutritional fallacies. W. Weston.—p. 397.

NEURAL MYATROPHY AND VITAMIN E. Some neural myatrophies due to a deficiency of vitamin E can be corrected if identified early and treated before too many nerve cells have been damaged. Infantile cerebral palsy may result from a vitamin E deficiency in the mother before birth and during lactation.

NUTRITIONAL FALLACIES. It is a fallacy to consider that iron requirements can be met by eating raisins or white bread. Both are poor sources of iron. Tomatoes should not be eliminated because they contain copper which, under certain conditions, is a toxic element. It cannot be assumed that food cooked in aluminum is an etiologic factor in cancer or rickets or that

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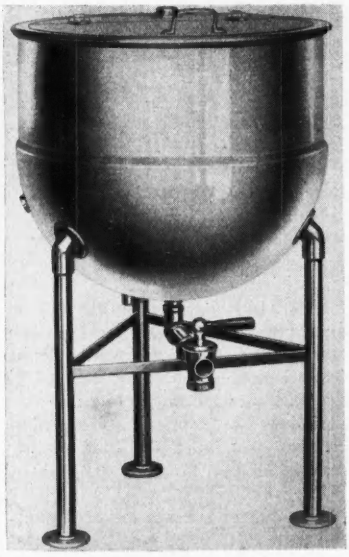

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aluminum as an ingredient of baking powder is toxic. Eating seafood should not be prevented because small traces of arsenic have been discovered in fish. Spinach should not be discarded because it contains oxalic acid. Oxalic acid occurs in fruits and vegetables. It is fallacious to believe that a perfect substitute for mother's milk exists.

INSTITUTION MANAGEMENT

American Restaurant Magazine

Vol. 25, May 1941

*A six point defense against the cost rise blitzkrieg. G. L. Wenzel.—p. 32.
*Florida Key lime pie. M. B. Strause.—p. 35.
Table merchandising that sells and interests. J. V. Malone.—p. 46.

CONTROLLING RESTAURANT COSTS. Beef and fruit specification forms, vegetable receiving chart, butcher's and steam table portion chart, beef stew formula, simplified pricing procedure and an allowance chart.

LIME PIE. Buying specifications for Florida Key limes, and ingredients for pies. A regular flaky crust dough or one rolled in on one side with Graham crackers is recommended and also a meringue topping that will not "weep", pull away from the sides, or slide off the top when pie is cut. Recommends chilling a few hours before serving to improve flavor and to prevent milk base souring.

Buildings and Building Management

Vol. 41, May 1941

Introducing . . . skip cleaning. J. J. Dunlop.—p. 17.
Wage-hour decisions differ.—p. 19.
Ready for fire emergencies. M. J. Reidy.—p. 24.
Water wax specifications. C. E. La Roche.—p. 38.
Standardized neatness.—p. 39.

Food Industries

Vol. 13, May 1941

U. S. inspection and grading.—p. 37.
*Wheat "peeling" process yields high-vitamin flour and bread.—p. 70.
How the British make jams. Part I. H. B. Cronshaw.—p. 74.
*Coffee preserved by freezing.—p. 79.
How to measure bulk quantities of liquids. Part II. N. M. Carter.—p. 80.
*Progress in processing salt stock. Part III. W. G. Wormley.—p. 86.
*Canning tomato juice.—p. 115.
*Canned fruit juices.—p. 115.
*Frozen cream.—p. 116.
*Fat content of cream cheese.—p. 116.
Bacteriophage—trouble maker in cheese manufacture.—p. 117.
*Vitamin B_1 content of flour.—p. 117.
*Why zero deg. F. is best for pork in frozen storage.—p. 118.

WHEAT PEELING PROCESS. Theodore Earle, a mining engineer, has developed a flotation method of removing wheat hulls. The remainder of the grain when milled, produces flour that retains its vitamin content, does not turn rancid, and has a lower crude fiber content.

FROZEN COFFEE. Coffee frozen immediately after grinding, stored at zero and sold house-to-house from refrigerated trucks by Bob White Frosted Foods Corporation, New York, provides coffee of quality at less expense.

SALTED ONIONS, CAULIFLOWER AND PEPPERS. Detailed directions for processing salted onions, cauliflower and peppers.

TOMATO JUICE. Taste tests indicate that there is no significant difference in the odor, color or flavor of canned tomato juice resulting from temperature differences in canning. No spoilage risk should be taken, therefore, for the sake of low filling or processing temperature conditions.

FRUIT JUICE. The type of juice extractor and its adjustment play an important part in determining the quality of the vegetable or fruit juice. The temperature during processing, the type of container used and the method and temperature maintained during storage are also important factors in the final quality of the canned fruit juice.

FROZEN CREAM. Frozen cream is an important dairy item with 20 to 30 million lb. put into

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storage yearly. It is used for ice cream and to some extent for cream cheese. Cream, 40%, freezes homogeneously without fat rise such as occurs in milk or cream below 25%. The cream is thawed by breaking into lumps and adding to ice cream mix as it is heated.

CREAM CHEESE. Cream cheese prepared by the cooked-curd method from cream of 16 to 20% fat content gives a cheese of 37 to 42% fat and 50 to 54% moisture. Lower fat creams give cheese of grainy texture and crumbly body, while higher fat creams produce cheese that is too smooth and sticky. Cream cheese is also made by the "hot-pack" method of reheating drained curd with cream and stabilizers and homogenizing. This process yields a relatively low-fat cream cheese, the quality of which depends largely on the quality of the curd used.

THIAMIN IN FLOUR. The vitamin B_1 (thiamin) content is more rapidly determined by the fermentation method than rat-feeding tests. There is a definite relationship between the ash and thiamin content as observed in cake, standard patent, and straight patent flours. The softer wheat flours run lower in thiamin content, but the geographical source of the grain product is not found to be a determining factor.

FROZEN PORK. Temperature is the principal factor in affecting the color, rancidity and moisture content of pork. Pork and fat can be preserved for about a year if the storage temperature is no higher than 0 deg. F.

Horwath Hotel Accountant

Vol. 21, May 1941

Hotel operations in 1940.—p. 2.
*Restaurant costs, accounting and control. G. O. Podd. —p. 2.

RESTAURANT ACCOUNTING. Numbered sales checks and an automatic register provide a check on the distribution of food and the collection of cash, and data as to the number served, popularity of dishes and so on. The cash receipts record shows the total sales for the day, the sales by meal periods, and the total cash receipts and charges. The person receiving goods, the person checking bills as to price and amount, and the person paying bills must know exactly what has been ordered. Goods received should be entered on a receiving sheet so that the amount of expenditures for each day can be determined. The cost and expense records should be set up so as to segregate the different types of expense for the purpose of obtaining the monthly figures. Other records necessary are the payroll record, a general journal and a general ledger.

Hospital Management

Vol. 51, April 1941

Therapeutic dietetics in relation to surgery. L. Esch.—p. 55.
"Meating" the hospital menu. L. Schenck.—p. 58.

Vol. 51, May 1941

Cooperation of dietitian and purchasing agent necessary to hospital's economic welfare. T. W. Irwin.—p. 53.
*Apricots have "appetite appeal." I. M. Lucas.—p. 56.

APRICOTS. There are 3 varieties of apricots used for drying: Blenham, Moorpark, and Tilton. Dried apricots are useful as source of iron in anemia diets. By serving in attractive ways, they give variety to the menu, and are an economical and excellent source of vitamins and minerals.

Hospitals

Vol. 15, June 1941

Price trend of hospital commodities. McGill Commodity Service.—p. 44.
*Purchasing groceries. S. J. Sexton.—p. 78.

PURCHASING GROCERIES. Recommends policy of purchasing for immediate needs only. Requirements for canned goods futures should approximate those of previous seasons. There is no advantage in attempting to anticipate requirements beyond actual needs. This buying policy will help prevent unwarranted price advances.

Hotel Management

Vol. 39, May 1941

15 color schemes for guest rooms.—p. 24.
Fruit juice and nectar combinations. A. Easton.—p. 26.
Our 7th edition salad bowl.—p. 27.
Club plate arrangements for May menus.—p. 32.
Plate combinations.—p. 35.
100 ways to control food costs.—p. 39.
What you should know about food values . . . and their protection.—p. 42.
Training for hospitality service.—p. 46.

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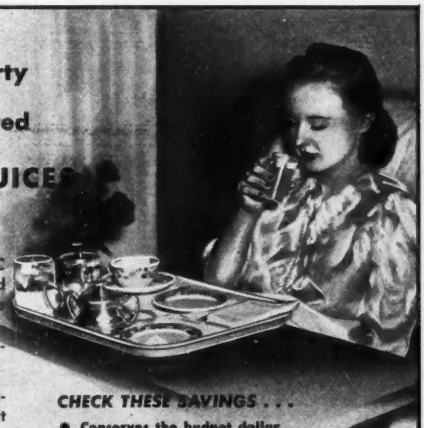

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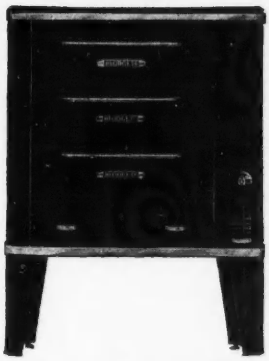

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Journal of Home Economics

Vol. 33, May 1941

The place of economics and business in consumer education. H. Kyrk.—p. 302.
*Training for household employees in Philadelphia. H. C. Goodspeed.—p. 329.
The home economist and the service laundry. M. A. McKee.—p. 331.
*The cleaning action of washers in relation to agitator and tub design. L. J. Peet and G. M. Johnson.—p. 340.

TRAINING FOR HOUSEHOLD EMPLOYEES. The need for trained household employees has been given constant and effective support by the Philadelphia Institute of Household Occupations. The work includes classes in food preparation, food service and home management, home hygiene, child development and family relationships.

CLEANING ACTION WASHERS. Tests were carried on to determine the action of washing machines on cloth by the household equipment department at Iowa State College. Complete details of experiment are given with charts and graphs illustrating results. The tests indicate that adequate correlation between size and shape of tub and the speed and angle of oscillation of the agitator should be made if each agitator is to operate under optimal conditions and give maximal efficiency.

Modern Hospital

Vol. 56, May 1941

*Rules for refrigeration. J. A. Doherty.—p. 84.
Specifications for small hospitals. W. J. Donnelly.—p. 86.
*Selecting a new system. S. G. Davidson.—p. 88.
Counting costs in food control. A. M. MacFarlane.—p. 90.
*Freezing fresh foods. H. M. Terrell and G. Stumpf.—p. 92.

Vol. 56, June 1941

*Trends in kitchen equipment. F. Quast.—p. 80.

REFRIGERATION RULES. Maintenance of refrigeration system should be entrusted to trained person. Frequency of defrosting determined by experiment. Type of refrigerator should be suited to use. Regular inspection and repair of all equipment will cut expenses.

HOSPITAL REFRIGERATION. The Grace Hospital, New Haven, Connecticut, replaced circulating brine type refrigeration with individual units in the main kitchens and several floors serving kitchens with satisfactory results.

FREEZING FOODS. Freezing fresh fruits and vegetables has been found to save from 1/3 to 2/3 of the purchase price of commercial frozen foods. This is done in ice cream machine with attached hardening cabinets.

KITCHEN EQUIPMENT. Kitchen work units should be well planned and equipped to provide for most efficient production and service. Dietitian should plan with architect and engineer to obtain floor plans which will facilitate: receiving of supplies and transfer of prepared food to service units; effective garbage disposal; adequate floor drainage; and proper air-conditioning, ventilation and lighting. New improved equipment includes steam tables available for particular service with thermostatic control. Mechanized controls for baking govern volume and quality of baked goods. Machines and mechanical devices should be used to save labor and standardize preparation methods.

Nation's Schools

Vol. 27, May 1941

*Yesterday and today. R. L. Hamon.—p. 34.
Types and trends in lighting. W. G. Darley.—p. 38.

LIGHTING. Use of exposed bulbs, either screwed into ceiling sockets or suspended on drop cords, violates every principle of lighting but does yield the maximum light intensity in proportion to installation costs and produces a higher ratio of foot candles to watts than any other type of incandescent system. The shaded, exposed bulb is objectionable because its surface brightness and distribution of light is worse than the unshaded, exposed bulb. Indirect light is the most desirable type of incandescent lighting. It is reflected downward from all portions of ceiling and upper walls, thus practically eliminating shadows. Glare of surface brightness is eliminated; however, ceiling brightness might become objectionable. The fluorescent tube lists among its advantages the high ratio of lumens to watts with corresponding low ratio of surface brightness and heat to lumens. Foot candles can be multiplied 3 or 4 times without rewiring. Fluorescent lights are economical to operate but expensive to install.

Appetite Appealing

WHEN OTHER FOODS ARE REFUSED

During chronic illness, during the height of infectious fevers, and following surgery, the ingenuity is frequently taxed in providing nourishing foods that appeal to the lagging appetite and do not overtax the digestion.

New Improved Ovaltine, made with milk according to directions, is accepted by most patients with relish, though many other foods may be refused. Palatable and more easily digested than milk alone, it usually continues to appeal even to the most jaded appetite. The low curd tension of this pleasant food drink facilitates rapid gastric emptying, minimizing distention and epigastric discomfort.

The recommended three daily servings of New Improved Ovaltine, made according to directions, each with 8 oz. of milk,* provide 30.00 Gm. protein, 66.00 Gm. carbohydrate, 31.95 Gm. well emulsified fat, 1.05 Gm. calcium, 0.903 Gm. phosphorus, 11.9 mg. iron, 0.75 mg. copper, 2953 I.U. vitamin A, 432 I.U. vitamin D, 302 I.U. vitamin B_1, 511 Sherman-Bourquin units vitamin G, 8.90 mg. pantothenic acid, and 0.21 mg.† pyridoxin.

*Based on average reported values for milk
†Provided by the dry Ovaltine itself

NEW IMPROVED *Ovaltine*

2 KINDS—PLAIN AND CHOCOLATE FLAVORED

Ovaltine now comes in 2 forms—plain, and sweet chocolate flavored. Serving for serving, they are virtually identical in nutritional value.

• • •

Dietitians are invited to send for individual servings of New Improved Ovaltine. The Wander Company, 360 North Michigan Ave., Chicago, Ill.

Personnel Journal

Vol. 19, April 1941

German labor relations. C. S. Slocombe.—p. 356.
Employee attitude surveys. H. Moore.—p. 360.
*Employee improving rating method. D. Carlson.—p. 364.
*Promotion practices of public agencies. N. J. Powell and S. Tinkelman.—p. 372.
*Organization lines. J. J. Jackson.—p. 378.
Occupational trends in the United States. H. D. Anderson and P. E. Davidson.—p. 388.

EMPLOYEE RATING. Service or efficiency ratings may be used as a means of determining how much to pay an employee, in which case they are usually kept secret. Or they may be used as a means of stimulating an employee to improve his work by measuring his individual improvement.

PROMOTION PRACTICES. A survey of promotion practices shows marked variations in procedures. The only generally accepted practice is the use of competitive examinations and the factors of seniority and record in selecting candidates. Some personnel agencies allow rapid promotion, while others require as many as 5 years of service in a position before advancement is made. Some agencies weigh seniority heavily, others stress record.

ORGANIZATION. Each executive should set up a rather definite organization plan depending on the type of work done, the size of the organization and the personnel available. In all contacts it is necessary that a member deal with the proper authority; however, no concern should have such rigid organization lines that the necessary work would be stopped or an emergency not properly handled because of the absence of the proper authority. With definite lines of authority and responsibility, there should be no doubt in the minds of employees as to their instructions and to whom they are responsible.

Restaurant Management

Vol. 48, May 1941

What's happened to the restaurant business?—p. 8.
*Edible nuts—their characteristics. L. P. DeGouy.—p. 24.
*Milk and chocolate drinks.—p. 26.
*Dictionary of air conditioning. F. H. Randolph.—p. 28.
*Prize menus.—p. 30.
"American wines for American hotels." J. Molera.—p. 34.

EDIBLE NUTS. Nut preparation and processing, salting and roasting of nuts, dishes which may be prepared with nuts, and food value, selection and care of nuts are among the aspects discussed in a comprehensive study of edible nuts. A chart lists 14 popular nuts, how purchased, and [illegible] by cups per pound. Additional information is given for all edible nuts, including source, types, place in menu, nutritive value, portion size, and other factors.

MILK DRINKS. Recent surveys show that close to 1[illegible] of all fountain beverage sales are milk drinks with chocolate flavors most popular. Photographs accompany a discussion of preparation and service standards of successful food merchandisers.

AIR-CONDITIONING. A dictionary of air-conditioning gives essential information on purchase and use. Sketches show various parts of an air-conditioning unit and operation of a typical air-conditioner.

PRIZE MENUS. Winning luncheon and dinner menus priced at $1, 75¢ and 50¢, but with a food cost of 40% or less, as submitted by over 10 hotel and restaurant contributors in various sections of the country. The food cost for each individual menu item is included, as well as total. Illustrated plate arrangements.

The *Jim Vaughan*

Electric Meat, Fish and Bone Cutter

The "Jim Vaughan" is gaining increased popularity and favor among leading dietitians. There are many good reasons why this modern piece of equipment is rapidly taking its place in the modern hospital kitchen.

The Saving of Meats. T[h]e ...orm and controlled cutting of meats, fish and other ...eat products on "Jim Vaughan" result in equal and, ...refore, more portions out of a given amount of mea... Users claim savings of 5 to 20% on their meat bills

"Jim Vaughan" is Alw... Ready. The "Jim Vaughan" is always ready fo... ork. It doesn't require highly skilled or experience... help. It insures having portions ready when the ch... wants them.

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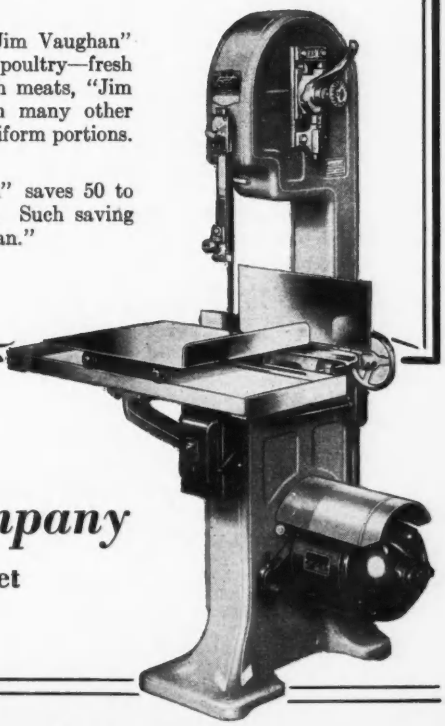

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NEWS NOTES

Activities of House of Delegates, A.D.A. The survey of dietitians made by the House of Delegates is practically complete. The pink registration cards are on file in the A.D.A office and the information which they contain is being used by the Placement Bureau in making assignments. The registration in affiliated states was conducted by the state representative to the House of Delegates. Registration in non-affiliated states was very capably handled as follows: Arizona, Virginia Emerson; Arkansas, Clara McKenzie; Idaho, Margaret Ritchie; Maine, Cecelia McCarthy; Mississippi, Genevieve Bucknell; Nevada, Clara B. Garrison; New Hampshire, Helen E. Gilson; New Mexico, Mrs. Mary Standefer Hurmence; North Dakota, Helen Heckman; South Dakota, Mrs. Ruth Spurling Crooks; Vermont, Theodora Wakefield; West Virginia, Mildred Kent; Wyoming, Agnes English.

Three committees of the House of Delegates have been at work during the year. Mable MacLachlan, Michigan, is chairman of the committee which is preparing "An Outline of Ethical Procedure for Dietitians." Her committee members are Elizabeth Meinung, Frances Low, Henrietta Fleck and Martha S. Pittman.

The committee to study "Organization of the House of Delegates of Other Professional Associations" is headed by Blanch Bohach, New York, assisted by Elizabeth Perry, Ohio, and Helen Gillum, California.

The Invitation Committee has made an analysis of membership and prepared a map which will be offered as a guide for the selection of meeting places.

Members of the Nominating Committee for this year are Mable MacLachlan, Helen Gillum and Phyllis Sprague. The ballot was conducted by mail.

Arrangements have been made for alternates, delegates who will assume office after the meeting, and visitors to attend the sessions of the House of Delegates at the St. Louis meeting. Seating space in the assembly room has been provided for alternates and new delegates directly back of official delegates. Visitors will sit back of alternates and new delegates.

Community Education Section Bibliographies. Provided the business office of the Association in Chicago receives a minimum of 50 orders, it is planned to mimeograph copies of "Normal Nutrition Annotated Bibliography 1940–1941" single copies of which will be available at 15 cents. Other mimeographed bibliographies which will be available under the same conditions include "The Role of the School Lunch in the School Health Education Program"; "Adequate Diet at Minimum Cost"; and "Role of Nutrition in Health Education", priced at 10 cents each.

Legislation of Interest to the Dietitian. On May 28 H.R. 4906 was introduced by Mrs. Edith Nourse Rogers of Massachusetts and referred to the Committee on Military Affairs. Reference to this legislation appeared on page 564 of the June–July JOURNAL. The bill is designed "to establish a Women's Army Auxiliary Corps for noncombatant service with the Army of the United States for the purpose of making available to the national defense the knowledge, skill, and special training of the women of this Nation." The corps is to consist of not more than 25,000 women between the ages of 21 and 45, and will be staffed by a director, such number of assistant directors as may be considered necessary or advisable, and officers of first, second and third grade, the initial number of such appointments not to exceed 750. The director will receive a salary of $3000 per annum, assistant directors $2400, first officers $2000, second officers $1575, and third officers $1500, all granted allowances in lieu of rations at the rate of 60 cents per day and adequate quarters. Below the rank of officers it is planned to select from the membership 100 first leaders, 1000 leaders and 2500 junior leaders, with salaries of $864, $720 and $684 respectively. From the remainder of the corps 1200 first, 2400 second, and 3600 third grade auxiliary specialists are to be appointed, with a base pay of $21 per month for the first four months of service and $30 per month thereafter, with additional pay of $15, $10 and $5 per month respectively.

A significant clause in this bill states that the corps "shall not be a part of the Army but it shall be the only women's organization authorized to serve with the Army, exclusive of the Army

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WITH I ... COPP

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Adamson, and Smith, Can. Med. Assn. Jour., 24, 793, 1931.

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Nurse Corps." The Secretary of War is authorized to establish and maintain such number of schools as he may consider necessary for the purpose of training candidates for officers of the corps. The Secretary shall prescribe uniforms, insignia, accessories and equipment for the corps and shall procure and furnish to all members thereof, such uniforms, headpieces, shoes, insignia, etc., as well as organization equipment and supplies, as may be required. Regulations for travel and the payment of travel allowances shall be similar to those for travel of the Army. Medical and dental services and hospitalization shall be provided for each member of the corps for injuries, sickness and disease during the time such member is actually serving her enrollment or appointment, such services to conform as nearly as practicable to similar services rendered to the personnel of the Army. If injured in line of duty or when engaged in authorized travel or if any member dies as the result of physical injury, she or her beneficiary shall be entitled to all the benefits prescribed by law for civilian employees of the United States.

An appropriation of $25,000,000 is requested for the purpose of carrying out the provisions of this bill.

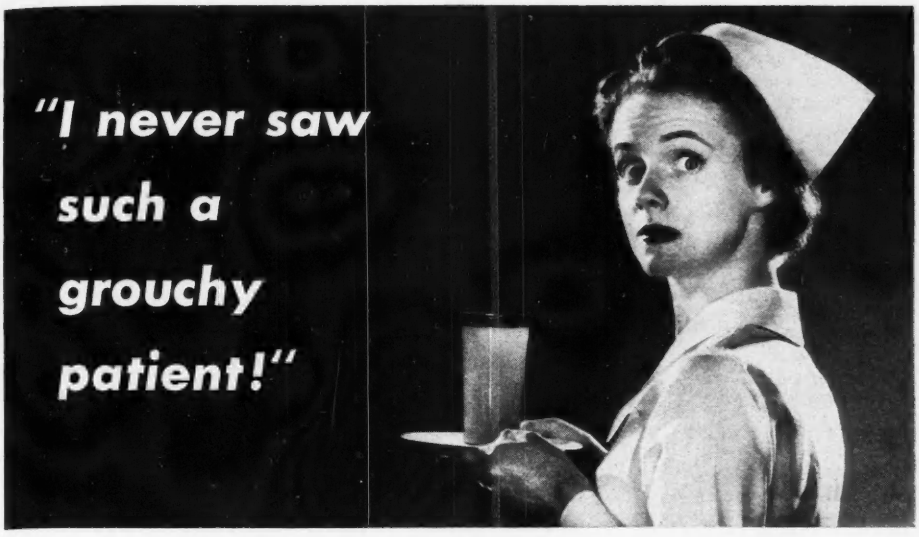
American Hospital Association and Standards of Education for the Hospital Dietitian. The Board of Trustees of the Association at a meeting in Chicago on June 7, voted to amend a resolution concerning standards of education and experience for hospital dietitians which is to be presented to the American Hospital Association House of Delegates this September. The revised resolution would have the A.H.A. endorse the specific standards of the American Dietetic Association for the training of the hospital dietitian which include a college degree with a major in dietetics and institution management and one year of postgraduate training in a hospital offering a training course which is approved by the A.D.A. The resolution is published in detail on page 70 of *Hospitals* for July.

Altrusa International Presents Distinguished Service Awards. Harriet Elliott, Associate Administrator in charge of the Consumer Division, Office of Price Administration and Civilian Supply, and Mary I. Barber, President of the American Dietetic Association, were presented silver medals for distinguished service by the Altrusa International at the Hotel Roanoke, Roanoke, Virginia, July 11. Miss Barber is continuing her residence in Washington where on July 1 she was named Food Consultant to the Secretary of War. In presenting the awards Mrs. Dessalee Ryon Dudley, President of Altrusa International, stated that it was an honor to all business and professional women to have two women in such positions as the above in Washington.

American Association for the Advancement of Science. At the nutrition section meeting at the University of New Hampshire, June 26, the program of which appeared in the June-July JOURNAL, at least twenty different groups, including nutrition workers, home demonstration agents, public health, social service and nutrition research workers were represented. The attendance included visitors from the six New England states.

The Institute of Hospital Administrators met at the University of Chicago August 13–27. Demonstrations included central and other types of food service, and problems of food administration. E. M. Geraghty, executive dietitian, Union Memorial Hospital, Baltimore, delivered a lecture on management of the food service in the hospital and led a seminar on the same subject. Beulah Hunzicker, executive dietitian, Presbyterian Hospital, Chicago, led a conference on planning and equipping the dietary department and maintaining efficient food service.

School of Nutrition at Cornell University. Open to students who have completed 3 years of preparatory work at college level, the establishment of a school of nutrition with courses leading to the degree of master of science in nutrition has been announced by Cornell University. Dr. Leonard A. Maynard, professor of animal nutrition at Cornell for the past 20 years and director of a nutrition laboratory established by the U. S. Department of Agriculture in 1939, will be director of the school and members of the staff will be drawn from divisions of the university concerned with nutrition problems. Dr. Eugene F. Du Bois, professor of physiology, Cornell University Medical College, will be associated with the work.



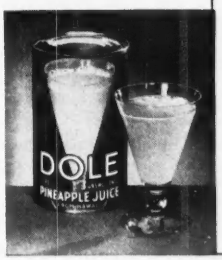
Perhaps the grouchiness is due to monotony in the diet. Perhaps the patient is fed up with having the same fruit juice brought to him again and again. Perhaps he would smile if he were served a tall, cool glass of Dole Pineapple Juice for a change.

There's something about Dole Pineapple Juice that makes young and old drink it with enthusiasm. It may be rotated acceptably with other fruit juices as a good source of Vitamins C and B-1, and yields alkaline mineral residues in the body.

For example—a six-ounce glass of Dole Pineapple Juice contains about 1/3 the daily minimum requirement of Vitamins C and B-1; it also contains some Vitamin A, Calcium, Iron and Phosphorus.

Dole Pineapple Juice is high in quickly available food energy. The caloric content is 16.9 per ounce.

There is nothing added to Dole Pineapple Juice. It is the true, undiluted juice of big, perfect pineapples ripened on the plants. The exclusive Dole packing process retains the field-fresh flavor and fragrance to a high degree. Convenient to serve—just open a chilled can—pour and serve.



One six-ounce glass of Dole Pineapple Juice contains:

Biological Assay for Vitamins

Vitamin A	117 I. U.
Vitamin B-1 (Thiamine)	100 I. U.
Vitamin B-2 (Riboflavin)	0.0372 milligram
Vitamin C (Ascorbic acid)	240 I. U.

Mineral Analysis

Potassium	0.282 gram
Sodium	0.00228 gram
Calcium	0.0252 gram
Magnesium	0.0234 gram
Iron	0.00036 gram
Manganese	0.0012 gram
Copper	0.00006 gram
Phosphorus	0.0144 gram

Typical Analysis

Moisture (by drying)	84.7%
Protein (N x 6.25)	0.3
Fat (Ether extract)	trace
Crude Fiber	0.1
Titratable Acidity (as anhydrous citric)	0.6
Ash	0.3
Total carbohydrates other than crude fiber and acid by difference	14.0

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FROM HAWAII, U. S. A.

ACCEPTED AMERICAN MEDICAL ASSN Canning Age Foods

(In writing to advertisers, please mention the journal—it helps.)

Postgraduate Courses in Internal Medicine were given at the Pennsylvania Hospital, Philadelphia, June 9–27. Mrs. Martha Alderman Hunscher, director of the Food Clinic, was assigned the subjects of "Diet in Diabetes" and "The Food Clinic".

Examination for Nutrition Consultant, West Virginia. Mr. Carl M. Frasure, supervisor of the Merit System Council for the State of West Virginia, announced on July 1 that an examination would be given for the position of nutrition consultant at a monthly salary of $190–$230. Residence in West Virginia has been waived in consideration of the applications for this position. However, residents of the state may be given preference in making appointments. Complete information may be obtained by writing directly to the above mentioned council at Morgantown, West Virginia.

The Council on Foods and Nutrition, American Medical Association, Reports on National Nutrition for Defense. The *Journal* of the A.M.A. for June 21 lists recommendations of the Council in connection with the conference which were submitted to the House of Delegates for approval. Among the recommendations were "that special attention be paid to the diets and nutritional status of all workers in industry and particularly of those most directly concerned with the national defense effort", and that "vastly more important, that schools of medicine give greater thought to the teaching of nutrition." The report also mentioned that of the 900 persons attending the Nutrition Conference, but 15 per cent were physicians.

New Division of Nutrition. The *Journal* of the American Medical Association reports that the Puerto Rico Department of Public Health has established a division of nutrition functioning under the bureau of maternal and child hygiene. The nutritionist in charge will be available for consultation with other divisions of the department and with other groups and agencies as well as with individual patients of the department's clinics. Tables showing the nutritive value of foods used in Puerto Rico are to be prepared, and low cost menus will be distributed. The nutritionist will also be available for talks before various groups and to help others prepare such talks.

Nutrition in Defense Program, Woman's College of the University of North Carolina. Margaret Edwards, head of the Home Economics Department of the College, arranged a Rural Electrification Institute July 7–12 at which electrical equipment and its use in the promotion of better nutrition and food and fuel conservation were discussed. Demonstrations were given on the use of such equipment in the home and in the school lunch. Another on the school lunch given during the same interval was led by Blanche Tansil and the subject matter covered the nutrition problems in schools and how to prepare food for the school lunchroom with full consideration of equipment, layouts, etc. The regular summer schedule at the college also presented subject matter which tied in with the nutrition in defense program.

Radio Programs on Nutrition. Sponsored by the Women's National Emergency Committee, a radio program entitled "Listen, America" and devoted to nutrition was broadcast weekly during July over the red network of the National Broadcasting Company. The U. S. Department of Agriculture, through the "National Farm and Home Hour", presented over the blue network during July and August the following speakers and subjects: Miriam Birdseye, Department of Agriculture, "Rural People Build for Better Nutrition"; Dr. Lela Booher, U. S. Department of Agriculture, "The Food You Eat and the Will to Do"; Dr. Helen S. Mitchell, director of nutrition, Federal Security Agency, "Food Needs of Women", and "Good Nutrition Makes Life Longer and Happier."

A Biography of Mary Swartz Rose. Clyde B. Schuman of 420 Riverside Drive, New York, who is working on a biography to be entitled "Life and Work of Mary Swartz Rose as Scientist, Teacher and Friend", the royalties of which would go toward the establishment of a Mary Swartz Rose Nutrition Fellowship or some other appropriate memorial, asks the assistance of all former students and professional associates of Mrs. Rose in this undertaking. Miss Schuman asks that each student of Mrs. Rose who did not receive a questionnaire and who is willing to fill one out send her name and address to Miss Schuman, and that those who have received a questionnaire but who have not returned it,

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Allergy Diets... including lists of allowed and forbidden foods and tested recipes for a variety of wheat, milk and egg-free dishes.

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Please send ____copies Allergy Diets, ____ copies of Low-Calorie Diets and samples of Ry-Krisp. No cost or obligation.

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please do so at the earliest possible date. Professional associates of Mrs. Rose are also asked to send information, statements or comments concerning Mrs. Rose as soon as possible to the above address.

Health Books for Public Libraries, 1940. The *Booklist*, a guide for current books, published by the American Library Association, lists 33 health books for public libraries in the May 1941 issue. Of the 33, two concerned with nutrition, namely, *Vitamins* by Borsook, and *Essentials of Nutrition* by Sherman and Lanford, are included. The majority of the books listed deal with problems related to mental hygiene and social and psychological aspects of health.

Surgeon General in Collaboration with the National Research Council Authorizes Use of Vitamin Tablets in Arctic. The daily issue of two multiple vitamin capsules to soldiers billeted in the Arctic has been announced by the War Department. This provision is made as a precautionary measure toward the elimination of any possible nutritional deficiencies. The tablets will contain vitamins A, B_1, B_2, C and D and nicotinic acid compound.

The National School Cafeteria Association announces its annual meeting to be held at San Antonio, Texas, October 29–November 1. Mrs. Alice R. Certain, director of cafeterias, Board of Education, Jacksonville, Florida, is president of the association.

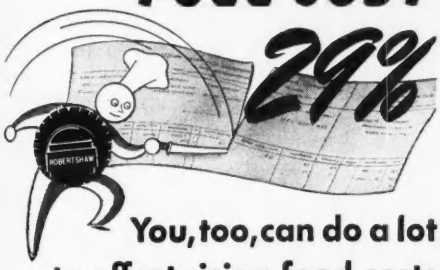
Consumer Meeting at Teachers College. Professor M. C. del Manzo presided at the meeting held at Horace Mann Auditorium July 16, with Marie Sellers, director of Consumer Relations, General Foods Corporation, introducing the following speakers: Dr. A. A. Schaaf, Consumer Service Department, Lever Brothers, Boston, "Consumer-Business Relations"; and Mary I. Barber, director of home economics, Kellogg Company, and food consultant to the Secretary of War, discussing "The Role of Home Economics in Consumer-Business Relations."

Food Advice Centers in Britain. *Bulletins From Britain* for June 18 reports that over a year ago, the Ministry of Food launched a widespread campaign to make the British housewife food conscious. Talks and lectures to groups of domestic science teachers, canteen managers, welfare workers and similar organizations have proved a success. The campaign is to be extended, and now aims at direct contact with the housewife in her home. Eighteen food advice centers have been set up in each of the 18 districts into which England and Wales have been divided for administration purposes. To each goes a team of one supervisor and three assistants, all of whom hold "domestic science qualifications." They in turn cooperate with the women's organizations and societies, and arrange public and private demonstrations and talks in both rural districts and towns. The demonstrators are there to help with the latest information about current food prices, local food conditions and rations; they give recipes well known and less well known, some from other countries more skilled in the culinary art than the British, "who have long been content with food which has lacked variety and imagination in its preparation." Demonstrations of three kinds are given daily: general, by special request, and, most popular for all, for beginners in cookery. Thousands of women and men too—army cooks and welfare workers, have benefited by this scheme.

Preparation of Vegetables. In view of the increased attention toward the conservation of the vitamin and mineral content of foods, particularly in the cooking and care of vegetables, the Home Economics Department of the Westinghouse Electric & Manufacturing Company, Mansfield, Ohio, under the direction of Julia Kiene, manager, has prepared a folder of 15 mimeographed pages covering a sample demonstration which teaches the conservation of the nutritional values of foods and incidentally conservation of fuel. Another mimeographed folder stresses attention to proper refrigeration to conserve vitamin content and flavor. Also available from the same source is a motion picture with sound, in black and white, entitled "The Precious Ingredient", designed to teach food preparation that will conserve vitamins and minerals.

Consumer Information. The Agricultural Marketing Service of the U. S. Department of Agriculture has distributed mimeographed copies of a talk on "Labeling Processed Foods in Terms of U. S. Grades" by Paul M. Williams,

THEY CUT THEIR STEAM TABLE FUEL COST 29%



You, too, can do a lot to offset rising food costs

Two restaurants in one chain equipped their steam tables with Robertshaw heat controls. Careful tests showed that gas consumption was reduced 25% in one case, 33% in the other. Such savings are especially important at the steam table, for it accounts for a large part of the total fuel bill, sometimes as much as 24%.

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Most steam tables now in use can be equipped with Robertshaw heat controls to regulate the gas or steam supply. The cost is low, the resultant savings high. It will pay you to have your gas company or equipment dealer inspect your equipment and install Robertshaw heat controls at once.

Write for free copy of *Hidden Losses in Your Kitchen and How to Stop Them.* This booklet shows you *many* ways to cut costs and improve quality of food and of service.
ROBERTSHAW THERMOSTAT COMPANY, 30 Church Street, New York; main office and factory, Youngwood, Pa.

Now, more than ever, you need

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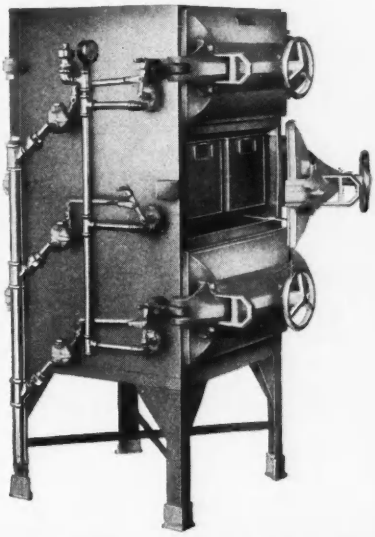

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senior marketing specialist, before a meeting of Better Business Bureau Executives; a folder entitled "The Consumer and the Standardization of Farm Products" which title is self-explanatory; one on "The A B C of Canned Fruits and Vegetable Labeling", and another on "U. S. Standards for Food Products" which explains the procedure and gives the date when standards for individual products were last revised.

More on the Labeling of Canned Goods. Ruth Atwater and Marjorie H. Black, of the Home Economics Division, National Canners Association, Washington, D. C., will be glad to send copies of "A Study of Certain Attitudes of Women Toward Canned Fruits and Vegetables" to all interested. The booklet comprises a report by Elmo Roper, public opinion research specialist, on a survey concerning the attitudes of American women toward canned foods and their labels.

Community Efforts to Insure Full Use of Food Supplies. This is the subject of a joint memorandum issued by the Office for Emergency Management, and prepared by Claude R. Wickard, Secretary of Agriculture; Harriet Elliott, Associate Administrator, Office of Price Administration and Civilian Supply; and Paul V. McNutt, Coordinator of Health, Welfare, and Related Defense Activities. Every community is urged to take stock of the local fruit and vegetable surpluses that may become available; to appraise community needs and distribute these surpluses, whether in fresh or preserved form, by such methods as school lunch and playground lunch programs, community kitchens for families in congested defense areas, or other ways of meeting the nutritional needs of families with small incomes; to appraise facilities and make necessary arrangements for collecting, storing, canning, drying, or otherwise preserving, according to safe standards, such of these products as are not used in fresh form. It is suggested that all available foods will be needed for the expanded school lunch program and to counterbalance the increased demand for commercially canned foods due to Army requirements and shipments under the Lend Lease program. It is emphasized that in the interests of national defense "no food which is produced this summer should be allowed to go to waste."

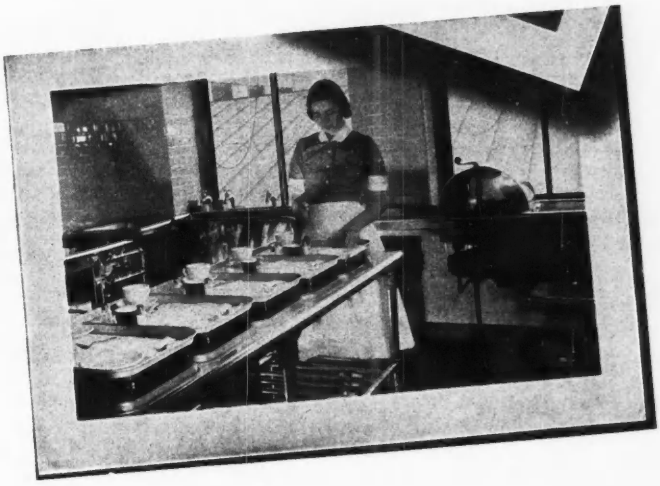
Food Stamp Plan. The Department of Agriculture has announced extension of this plan of distributing surplus agricultural commodities to Union County, Illinois, and Wyandot County, Ohio. The population of Union County, according to the 1940 census, is 21,528, with an estimated 1530 cases, representing 3650 persons, receiving public assistance and eligible to participate in the Food Stamp Plan. The population of Wyandot County, according to the 1940 census, is 19,218, with an estimated 750 cases, representing 1500 persons, receiving public aid in the area.

A Survey of Salaries of Hospital Personnel. *Hospitals* for June 1941 reports a study of the salaries of individual groups of personnel, including that of the Dietary Department, from several groups of hospitals of 25–50 to 330-bed capacity.

Aileen Brown. Miss Brown, one of the leading dietitians in Virginia, died at Richmond on July 5 and was buried at her home in Central City, Kentucky. Miss Brown for a number of years had been chief dietitian at the Medical College of Virginia and in charge of the approved training course for dietitians at the college. She leaves a host of devoted friends and her death is a very real loss to her profession. She graduated from the University of Kentucky and received her student training at Massachusetts General Hospital. Those who attended the annual meeting of the American Dietetic Association at Richmond will remember Miss Brown, for she was responsible for the local arrangements at this meeting and the gracious hospitality which has never been surpassed at any meeting.

Charlotte Raymond Arrives Safely in England. On June 13 cable notification was received announcing the safe arrival of Miss Raymond, who was appointed to the Red Cross-Harvard Medical Unit in England, and sailed March 8 on the American Export Lines for Lisbon.

Mabel G. Flanley Elected Secretary of the Advertising Federation of America. Miss Flanley, eastern director of Consumer Relations for The Borden Company, was elected to this post at the Federation's convention in Boston, May 28. A member of the A.D.A., she holds



AT HOME . . . IN BUSY KITCHENS

THE HOBART MAN, too, is at home in the Institution Kitchen. His business is the full, efficient *use* of kitchen machines. His interest lies in extending the utility of Hobart Food Machines. He deals in practical means of employing them for *all* of the work they will do.

Hundreds of these Hobart men work from Sales and Service "Stations" located in all principal cities of the nation: Hobart District Managers . . . Representatives . . . Service men . . . Dealer Contactors working with Hobart Dealers who offer help with Kitchen problems thru the application of Hobart Food Machines . . . help extending to complete Kitchen Engineering service.

The Hobart Representative's wide experience on the needs of busy kitchens, recommends his services of Kitchen Managers . . . confer with him on the work your machines are doing and the possibility of using them for more of the "Jobs Meant for Machines."

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the degree of master of science from the University of Washington and has lectured extensively in universities and colleges. Miss Flanley recently presided at the prevue of the Borden film "From Moo to You" presented at the Hotel Biltmore, New York, July 9. This is a fascinating film which should appeal both to adults and juveniles. With Elsie, the Borden cow, as the leading character, it presents in technicolor the various steps in the production of Borden milk and graphically portrays the distribution of the consumer's milk dollar.

Additions to List of Dietitians in Army Service. Mary Ann McKee, Station Hospital, Fort Ord, California; Mrs. Helen Hoover Yages, Fort Belvoir Hospital, Virginia; Winifred Halvorsen, Army Hospital, Honolulu; Louise Mohr and Dorothy Vogt, Fitzsimmons Army Hospital, Denver; Mary Ethel Meyer, Lowry Field, Army Air School, Denver; Margaret Hogan, Camp Meade, Maryland; Minerva Hall, Norfolk General Hospital, Virginia; Zora Garner, Army Hospital, Fort Jackson, South Carolina; Myrtle Morris, Marine Hospital, Boston.

An Army Dietitian Writes From Puerto Rico. Mildred E. Perry, hospital dietitian at Station Hospital, Post of San Juan, writes that in September 1940 they were feeding 80 patients in a 150-bed hospital, which, she remarks, is the oldest military hospital in the New World still in active use. By February 1 of this year they were feeding 300 patients, 16 civilians, and a detachment of 110 in two hospitals. In other words, her responsibilities are rapidly becoming those of a dietitian in a base hospital rather than a station hospital. Miss Perry feels that at present the status and function of the Army dietitian depend upon two factors, the attitude and cooperation of her commanding officer and her own ability in assuming responsibility and administering her own department. At present, Miss Perry writes, she is regarded as assistant to the mess officer, who happens to be a lieutenant in the Medical Corps. As head dietitian Miss Perry requisitions all meats, dairy products and staple supplies for both hospitals in cooperation with the mess steward. She finds that it is necessary to check the cleanliness and repairs in both messes [*Editor's note:* This ordinarily is the responsibility of the mess sergeant and corporal].

California Dietetic Association. An institute for hospital dietitians was held at the University of California at Los Angeles, July 31–August 1. Problems studied included standards for food intake, organization and management, and the dietitian's role in civilian defense programs. On the staff were 20 authorities from universities, government agencies and hospitals. The committee in charge included Dr. Martha E. Davis, Elsie Jo Nelson, Lillian Giebelstein, Lucile Waite, Clancy Morrison, Octavie de Beaulieu, Mildred Chase Cooke, Helen B. Anderson and Elizabeth Starr.

Officers of the Dietetic Section of the Association of Western Hospitals for 1941–42 are: Ruth Forsburg, Swedish Hospital, Seattle, chairman; Frances Cracken, St. Vincent's Hospital, Portland, vice-chairman; Lucile Waite, California Hospital, Los Angeles, secretary-treasurer. The section is planning a program of special interest to the administrative dietitian for the annual meeting of Western Hospitals in Seattle, April 13–16, 1942.

Clara Mae Brown, George Pepperdine College, is studying at Oklahoma A. and M. College under Dr. Daisy I. Purdy.

Essie L. Elliott, program chairman, Los Angeles Section, and home economics director, California Fruit Growers Exchange, spent the summer attending meetings in the East and giving radio talks in 24 eastern cities.

Recent changes in dietary staffs include the following: Lucile Corriston, Pomana College; Ann Faris, Torrance Memorial Hospital; Elizabeth Starr and Mary Scolcock, Santa Barbara Cottage Hospital; Catherine MacMillan, Hollywood Presbyterian Hospital.

Colorado Dietetic Association met at the University of Colorado, Boulder, May 25, for the annual spring meeting which was arranged by Anna M. Williams, head, Department of Home Economics. A luncheon was held at the Faculty Club with Mrs. Bly Curtis and Mrs. Hazel Fehlman, members of the home economics faculty, as guest speakers. The following officers were elected: president-elect, Louise Mohr; secretary, Helen Collins; treasurer, Addene Saxton. Esther Ratliffe, St. Luke's Hospital, Denver, state president for the past year, is succeeded by Marjorie McKinley, Pueblo.

Gladys Hall, national educational director,

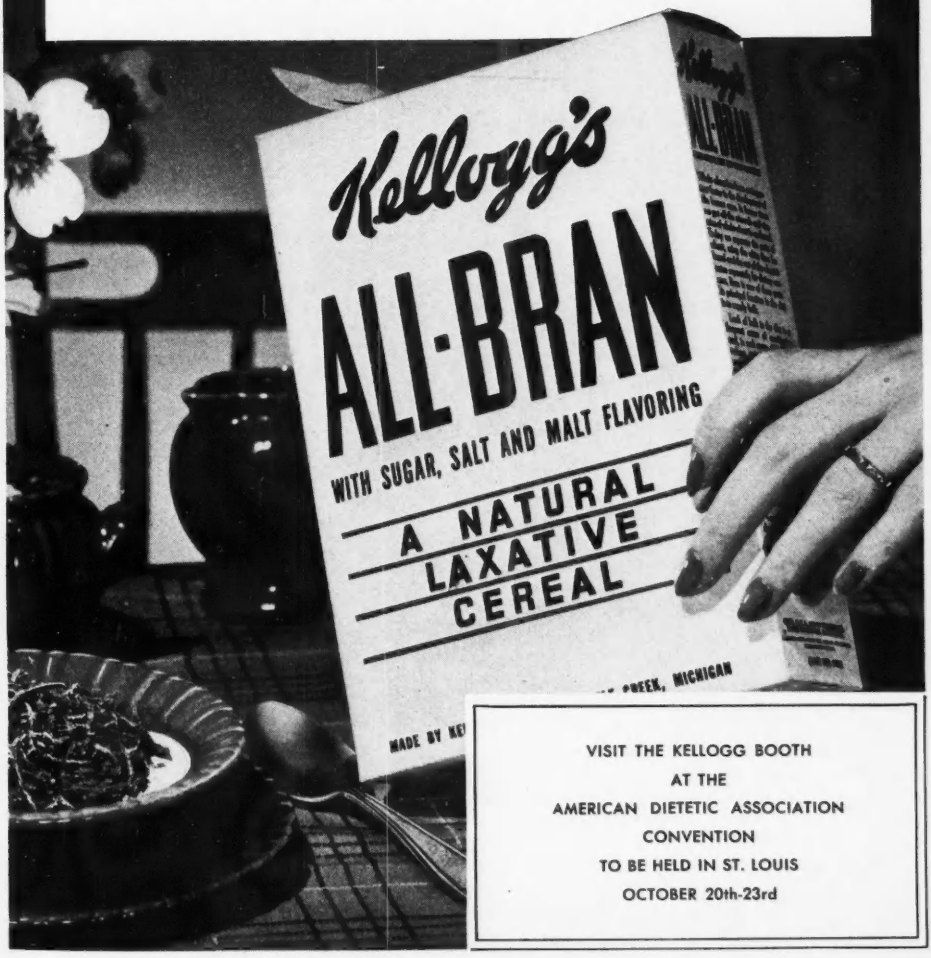
SUMMER MEALS NEED "BULK"

In the good old summer time when meals are likely to be light, it's a good idea to make particularly sure that your menus are not lacking in "bulk."

This important ingredient of a well-rounded diet is just as necessary in one season as another. Lack of it causes one of the common kinds of constipation.

An easy way to make sure of proper "bulk" in summer menus is to specify KELLOGG'S ALL-BRAN for breakfast. Its crisp toasted shreds, with milk or cream and maybe some fruit, make a delightful summer morning meal. And, of course, you can suggest plenty of interesting muffins and breads that contain ALL-BRAN.

FREE MENUS AND RECIPES are available in a monthly service to dietitians. Write to Dept. JADA-08, Kellogg Company, Battle Creek, Michigan.



VISIT THE KELLOGG BOOTH
AT THE
AMERICAN DIETETIC ASSOCIATION
CONVENTION
TO BE HELD IN ST. LOUIS
OCTOBER 20th-23rd

was the guest of Denver dietitians in March. She inspected the student dietitian training course at Colorado General Hospital, St. Luke's, and Children's Hospital, and was guest speaker at a dinner held at the Brown Palace Hotel.

Margaret Cult, Community Hospital, Boulder, 1940 dietetic graduate, has announced her marriage to Mr. Jack Todhunter, Colorado University law student.

Esther Mahoney is now assistant dietitian, Denver General Hospital, in charge of teaching the student nurses nutrition and dietetics.

Several Denver dietitians conducted a series of discussions at the Y.W.C.A. during June for the Denver chapter of the American Women's Volunteer Services, Inc. Topics included the adequate diet, reducing diets, menu planning, marketing problems and adjusting to price increases.

Kentucky Dietetic Association held its annual convention at the Phenix Hotel, Lexington, March 22–23. The program included: "The Growing and Use of Culinary Herbs", Miriam Birdseye, U. S. Department of Agriculture; "Vitamin B Complex and its Relation to Health", Dr. Frank L. Gunderson, biochemist, Quaker Oats Company, Chicago; "A New Challenge to Dietitians and All Nutrition Workers", Gladys Hall, American Dietetic Association; "Nutrition in a National Defense Program", Dr. Statie E. Erikson, chairman, State Nutrition Committee; and "Nutrition Standards for 1941", Dr. Lydia J. Roberts, University of Chicago.

Several luncheon meetings, tours through the new Home Economics Building at the University of Kentucky, a tea and a banquet were among the social functions. New officers for 1941–42 are: president, Florence Imlay, Agricultural Experiment Station, Lexington; president-elect, Mrs. Ruth Amidon, Louisville; vice-president, Gertrude Walker, Berea College Hospital; secretary, Elizabeth Helton, University of Kentucky; treasurer, Mary Opatich, Fort Knox.

Dr. Erikson, head of the Department of Home Economics, University of Kentucky, and Miss Imlay attended the National Nutrition Conference called by the President in May. Dr. Erikson heads a new committee which will determine the factual and scientific accuracy of all articles and radio talks given under the auspices of the state association. In response to an invitation extended the state association to act in an advisory capacity in the planning and equipping of a kitchen for the new Tuberculosis Hospital, Warren County, a committee was formed headed by Miss Helton.

The Louisville dietetic group held its spring meeting May 16 with Mrs. Winnifred Logan, Kellogg Company, Battle Creek, as guest speaker.

The South Central group, Bowling Green, has invited Dr. Gunderson as guest speaker for the fall meeting.

Mary Clair Dougherty, formerly of Rochester, Minnesota, has been appointed dietitian at the St. Elizabeth Hospital, Covington.

Maryland Dietetic Association. Nelda Ross was the guest speaker at the final meeting of the year at the Home for Incurables, Alice Janè and staff acting as hostesses. Officers elected for the coming year were: president, Helen Baughman, Johns Hopkins Hospital; president-elect, Alice Janè; vice-president, Josephine Anderson, Sheppard-Pratt Hospital; secretary, Alice Haight, Women's Hospital; treasurer, Eleanor Wilkinson, Family Welfare, Baltimore. Alma Bering, Sheppard-Pratt Hospital, was appointed historian. As the service gift of the association for this year, it was voted to present a two-year subscription to the JOURNAL of the American Dietetic Association to the Home Economics Department of Maryland College for Women, Lutherville.

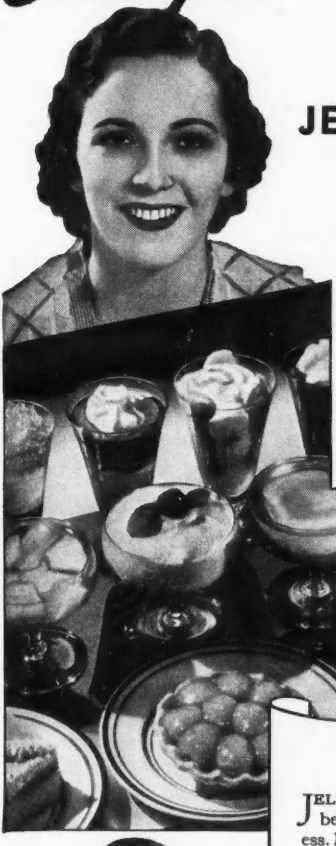
The Canteen Unit for Emergency Feeding of the Baltimore Chapter of the Red Cross has been working actively under the leadership of Mrs. Alice Lambert. One of the projects is the preparation of lunches at Red Cross Headquarters for volunteer blood donors.

The First Annual Institute on Hospital Purchasing was held at Johns Hopkins University, June 9–14. A demonstration at City Hospitals on the examining and scoring of canned goods based on government specifications was conducted by Helen Schmit. Kathleen Lewis, Johns Hopkins Hospital, participated in the panel discussion on "Food Prices."

Massachusetts Dietetic Association. The following officers were elected in May for 1941–42: president, Helen Strand Wollan; vice-president, Bonita Sharpe Simmons; treasurer

Sharpen Ailing Appetites

WITH THESE TEMPTING JELL-O SALADS AND DESSERTS



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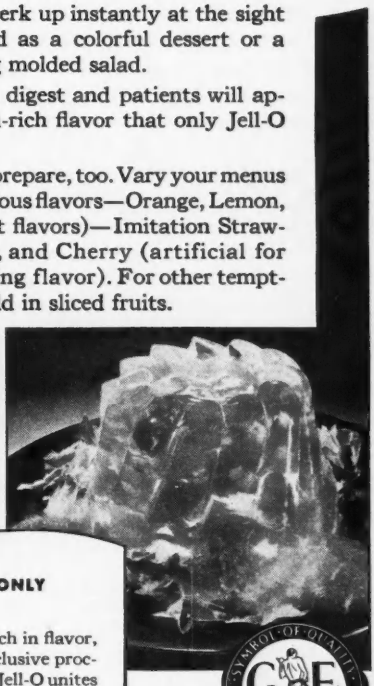
Jell-O is easy to prepare, too. Vary your menus with these six delicious flavors—Orange, Lemon, Lime (natural fruit flavors)—Imitation Strawberry, Raspberry, and Cherry (artificial for richer, longer lasting flavor). For other tempting variations, mold in sliced fruits.



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and corresponding secretary, Geneva Marble; recording secretary, Madeline Halleck; chairman of nominating committee, Beula Marble, and members, Elizabeth Kingsbury and Ruth Walker Crosby; delegate, Ruth White. Gertrude Spitz has since accepted the office of president, owing to the resignation of Mrs. Wollan, who has moved to Connecticut. Following the business meeting, student dietitians presented a Quiz Program, led by Margaret Becker, Beth Israel Hospital.

The association is planning a refresher course with Gertrude McDonald as director for the second week of September, in support of the national program on nutrition in defense.

The following appointments have been announced: Juliette McNeil, to Baker Memorial Hospital; Harriet Wilcox, Massachusetts General Hospital, to Colonnade Restaurants, Detroit; Androniacke Tsongas, to Visiting Nurse Association, Hartford, Connecticut; Marjorie Beach, Massachusetts General Hospital, to Basin Harbour Hotels, Vermont; Julia Dwight, to Henry Street Visiting Nurses Association, New York; Eileen Hicks, to Public Health Department, Newburyport, Massachusetts; Eleanor Page, Ruggles Street Nursery School, and Almeida King, New Haven Visiting Nurse Association, to Massachusetts Department of Public Health.

Recent graduates have received the following appointments: From Massachusetts General Hospital, Barbara Sullivan, to Newton Hospital; Marion Fisher, to Springfield Hospital; Marjorie Cantoni, to Massachusetts Department of Public Health; Elizabeth McCarthy, to Massachusetts General Hospital. From Beth Israel Hospital, Shirley Levy, to Boston City Hospital. From New York Hospital, Mary Shea, to Massachusetts Community Health Association. From Peter Bent Brigham, Carolyn Swan, to Robert Breck Brigham Hospital. From Boston Dispensary Food Clinic, Ruth Dickinson, to Massachusetts Department of Public Health.

Students assisting during the summer were placed as follows: Dorothy Rubinoff, Children's Hospital; Joyce Patterson, New England Baptist Hospital; Loraine Love, Deaconess Hospital; June Brikker, Virginia White and Mary Tsongas, Massachusetts Community Health Association; Natalie Houchard, Deaconess Hospital.

A week's workshop for instructors in nutrition was conducted by a nutritionist of the Massachusetts Department of Public Health for thirty-seven women trained in home economics who plan to give the Red Cross course in their respective communities. A week's refresher course for lunchroom managers was also offered by the same department with a registration of fifty-five.

Marriage announcements include that of Alice Slemmons, research dietitian, Massachusetts General Hospital, to Dr. William Robertson, Washington, D. C., and Frances Horgan, American Red Cross, Washington, to Dr. Theodore Leary, resident surgeon, Gallinger Municipal Hospital, Washington, D. C.

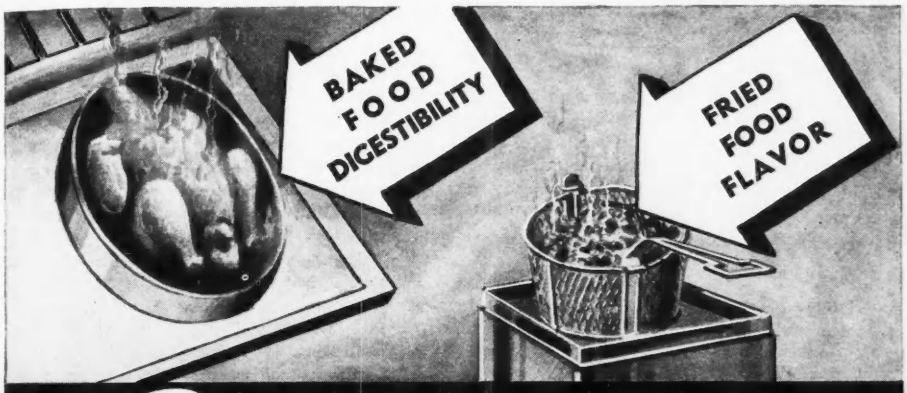
Nebraska Dietetic Association held its semi-annual meeting April 29 at the Cornhusker Hotel, Lincoln. The program included the following: "Correlation Between Psychiatry and Nutrition", Dr. Robert J. Stein, University of Nebraska; "Eating and Sleeping in Foreign Countries", Anna V. Jennings; "Women of South America", Helen Hasp, dean of women, University of Nebraska. Plans for the fall meeting were discussed at the business meeting, followed by a dinner.

The Diabetic Camp for Girls, opened for the first time last year at Coryell Park, Brock, reopened June 8 for a period of two weeks. Girls from 13 to 16 years of age are eligible. Della Caster, Lincoln, is camp director and dietitian.

Recent appointments include: Marian Stewart, to Illinois Central Hospital, Chicago; Anna Granzer, to Mercy Hospital, Council Bluffs; Ardith Wick, WPA, Springfield, Illinois; Virginia Lindberg replaces Miss Wick at University Hospital; and Willadean Nodruff replaces Martha Huddleson at the Clarkson Hospital.

New Jersey Dietetic Association. "A Mobile Kitchen from New Jersey to Britain" was the caption on a letter beginning a drive which in the space of one month reached its goal in an amount sufficient not only to purchase the kitchen but to equip it. The drive was a joint undertaking of the New Jersey Dietetic and Home Economics Associations directed by a committee consisting of Harriet Stone, chairman, Catherine Cahalan, Lillian Park, Marion Butters, Mary Buckley, Madelin Vautrinot, Sophia Morris and Juanita Trapp.

Elizabeth Cole, Montefiore Hospital, New



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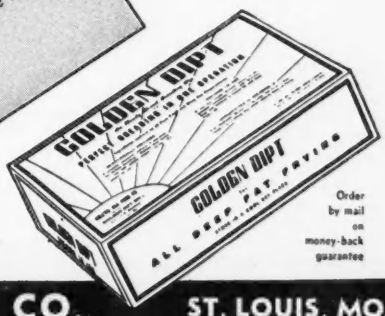

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York, has been appointed chief dietitian, Mountainside Hospital, Montclair.

Doris Bollenback, graduate of the New Jersey Cooperative Training Course, has been appointed to the Hackensack Hospital.

Announcements have been received of the marriage of Lee Conway to Mr. Raymond David Givins, Washington, D. C. The couple will reside at 5510 Lee Highway, Arlington, Virginia.

New York State Dietetic Association. Buffalo Dietetic Association was entertained by Etta Hackett at the Town Club in May following a business meeting. The association sponsored a broadcast devoted to Swedish recipes and dishes at the Hotel Touraine, by Laura Rischman of the Niagara-Hudson Company. An attractive smörgäsbord table was set up by the hotel. Miss Rischman wore a Swedish costume and following the broadcast showed a film in technicolor taken by her in Sweden in 1939.

Central New York Dietetic Association met May 22 at the Onondaga Sanatorium. Officers were elected as follows: president, Meredith Jones; vice-president, Mrs. Sarah Collins; secretary, Ruth Silverman; treasurer, Grace Humphrey. Program co-chairmen are Margaret Mills and Mrs. Fred Mahlerwein.

Oklahoma Dietetic Association. The executive board has announced the following committee chairmen for the year: Diet Therapy, Mary Moran Sellers, St. Anthony's Hospital; Community Education, Clara Cerveny, Oklahoma A. &. M. College; Professional Education, Laura Miller, University of Oklahoma; Administration, Pauline Butler, Anna Maude Cafeteria, Oklahoma City; Educational Exhibits, Esther Dinwiddie, WPA School Lunch Program; Membership, Pauline Naifeh, WPA School Lunch Program; Historian, Hazel Larrick, Enid General Hospital; Legislative, Margaret Durrett, Oklahoma City General Hospital; Publicity, Martha Spradlin, University Hospitals; Placement Bureau for Oklahoma, Lola Heuerman Janis, Oklahoma A. & M. College. The new editor of the *Bulletin* is Marguerite Ross, Oklahoma A. & M. College.

Dr. Daisy I. Purdy, director, Food Service Units, Oklahoma A. & M. College, who has been on a year's leave of absence, returned to her duties June 1.

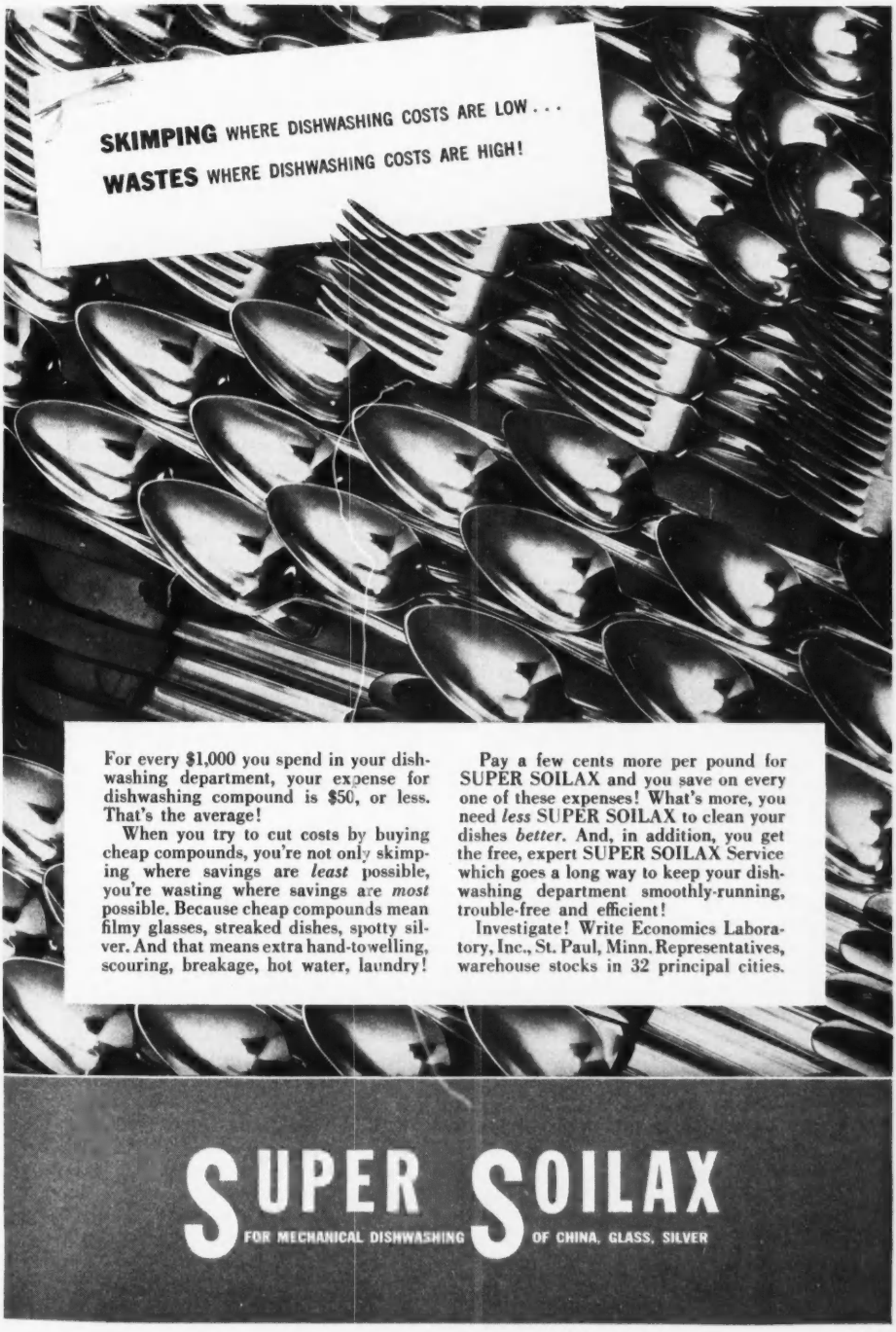
The following appointments have been announced: Pauline Naifeh, to WPA School Lunch Program; Ann Hains, St. Anthony's Hospital, to All Souls Hospital, Morristown, New Jersey; Esther L. Mahoney, to St. Anthony's Hospital; Vivian Lippert, Cordell Dining Hall, to Michael Reese Hospital; Vera Parman, University Hospitals, to Canteen Corps, American Red Cross Headquarters, Oklahoma City.

Recent graduates have received the following appointments: From University Hospitals, Katherine Hyde, to Vanderbilt University Hospital; Mary Katherine Robb, to West Nebraska Methodist Episcopal Hospital, Scottsbluff; Martha Osborn Aldredge, to Barnes Hospital, St. Louis. From St. Anthony's Hospital, Marie Daube, to All Souls Hospital, Morristown, New Jersey.

Recent student graduates are as follows: From University Hospitals, Wilma Hawkins, Norman, Oklahoma; Jean Hondrum, Jerome, Arizona; Flo J. Irwin, Clinton, Tennessee; Ethel Lienhardt, Manhattan, Kansas; Lois Ryan, Grand Forks, North Dakota. From St. Anthony's Hospital, Lovilah Sheker, Humboldt, Iowa; Mary Frances Ryan, Milwaukee; Patricia Heptig, Horton, Kansas; Marie Anne Daube, Carnegie, Pennsylvania; Mary Buswell, Oklahoma City.

Student dietitians entering University Hospitals' training course in September are: Betty Boehm, Kansas State College; Esther Burgett, Oklahoma A. & M. College; Alcy Goldsmith, University of Oklahoma; Solveig Peterson, University of North Dakota; Mary Quinn, Montana State University.

Pennsylvania Dietetic Association. At the ninth annual meeting at the Hotel Adelphia, Philadelphia, May 22–24, a group discussion considering the subject "Preparation of the Dietitian for Service to the Community", included the following speakers: Helen C. Goodspeed, director of home economics, Philadelphia Public Schools; Laura W. Drummond, director of home economics, Pennsylvania State College; Elizabeth Miller, director, Dietary Department, Philadelphia General Hospital; and Rena S. Eckman, Montefiore Hospital, Pittsburgh. This session was followed by a business meeting and tea, at which members of the Philadelphia Dietetic Association were hostesses.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At an open meeting the evening of May 22 at Klahr Auditorium, Hahnemann Medical College, Miss Drummond, chairman of the Pennsylvania Nutrition Council, presided. Addressing the meeting were Dr. Herbert T. Kelly, chairman, Commission on Nutrition of the Medical Society of the State of Pennsylvania, and Dr. Helen S. Mitchell, Federal Security Agency, Washington.

"The Service of the Dietitian in the Field of Special Diets" was the theme of Friday morning's discussion with the following speakers and subjects: Dr. John Davis Paul, chief, Diabetic Department, Episcopal Hospital, St. Christopher's Hospital for Children, and Stetson Hospital, "Difficulties in Teaching Diabetic Diets"; Henrietta Pribnow, director, Dietary Department, Hahnemann Hospital, "The Confusion of Present Methods"; Mr. J. Howard Reber, president, Philadelphia Metabolic Association, "The Patient's Perplexities"; and Charlotte Chatfield, Food Composition Section, Bureau of Home Economics, Department of Agriculture, "What Can Be Done." At the afternoon session Dr. Pauline Beery Mack, director, Ellen H. Richards Institute, Pennsylvania State College, Frances Hoag, Philadelphia Dairy Council, and Anna dePlanter Bowes, Division of Nutrition, Harrisburg, were speakers.

At the annual banquet, Besse Howard, lecturer and news commentator, spoke on the current world situation. Florence Peters, State Department of Welfare, Harrisburg, and president of the state association, presided.

At the closing session, "Service Through Selection of Tools" was discussed by William H. Linton, dining room manager, Penn Mutual Insurance Company; Katherine Louser, director, Dietary Department, Norristown State Hospital; John M. Cooper, Hobart Manufacturing Company; and Dixie Rudberg, director, Dietary Department, University of Pennsylvania Hospital. At the luncheon which followed, Nelda Ross, president-elect, American Dietetic Association, spoke on "The American Dietetic Association and Defense." Lila G. Hainer, president-elect of the state association, presided. The following officers were elected for 1941–42: president, Lila G. Hainer, Philadelphia; president-elect, Sylvia J. Levie, Mayview; delegate to the House of Delegates, Phyllis K. Sprague, State College; vice-president, Dorothy O'Brien, Scranton; secretary, Virginia Bounds, Philadelphia; treasurer, Mrs. Florence L. Pifer, Harrisburg. Nominating Committee: Genevieve Malloy, Pittsburgh, chairman; Elizabeth Bitzer, Allentown; Mary O'Hara, Scranton; Margaret Osborn, Harrisburg; and Frances Swenson, Philadelphia. The convention chairmen were: Program, Miss Miller; Local Arrangements, Miss Louser; Hospitality, Evelyn Carpenter, Philadelphia Hospital for Contagious Diseases; Reception, Anna Stapler, Educational Department, Abbott's Dairies; Publicity, Mary Eckhardt, University of Pennsylvania Hospital; and Educational Exhibit, Violet Lake, Babies Hospital.

Philadelphia Dietetic Association. At the April meeting, members of the association were guests of the American Stores Company. Elsie Carol, director of the Home Service Bureau, gave an illustrated talk on "Producer to Consumer", and Edna Prechel Brandau, instructor in home economics, Drexel Institute, spoke on "Creating Design Through Flower Arrangement."

On April 22 the association met at St. Christopher's Hospital for Children. Dr. Jean Crump, clinical professor of pediatrics, Women's Medical College of Pennsylvania, discussed "Dietary Problems of the Allergic Individual." Lillian F. Hack was hostess.

The annual business meeting and picnic was held May 13 at Norristown State Hospital. The membership now totals 200. Officers for 1941–42 are: president, Lillian F. Hack, St. Christopher's Hospital for Children; vice-president, Anne M. Fawcett, director, Dietary Department, Institute of the Pennsylvania Hospital; secretary, Sylvia F. Waide, director, Dietary Department, Pennsylvania Hospital for Mental and Nervous Diseases; treasurer, Frances L. Swenson, administrative dietitian, Mt. Sinai Hospital. Committee chairmen are: History, Martha Walker, director, Dietary Department, Jefferson Hospital; Hospitality, Miriam Gaige, staff dietitian, Presbyterian Hospital; Membership, Martha Swain, cafeteria supervisor, Board of Public Education; Program, Miss Carpenter; Publicity, Martha Eckhardt, staff dietitian, Hospital of the University of Pennsylvania; Special Diets, Harriet Everts, staff dietitian, Hospital of the University of Pennsylvania.

Virginia Bounds and Frances Selzer, Metabolic Department, Philadelphia General Hos-

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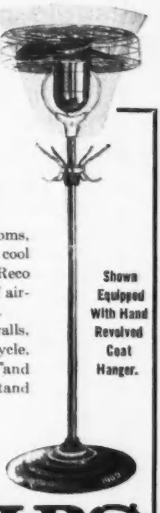

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pital, were speakers over WPEN in May on the subjects of diet in diabetes and the uses of surplus foods.

The following appointments have been announced: Henrietta Pribnow, Hahnemann and Presbyterian Hospitals, to Jewish Hospital; Loretta Doak, to Germantown Hospital; Helene Baker, Morristown State Hospital, to Pennhurst State School; Wilma Miller, to Anchor Hospital, St. Paul; Ann Hoover, Waynesboro Hospital, to Lankenau Hospital.

The following recent graduates have received appointments to the Jewish Hospital: from University of Illinois, Sylvia Levin and Leona Shapiro; from Montefiore Hospital, Lillian Emoff; from Latter-Day Saints Hospital, Fern Norbury; from Michael Reese Hospital, Lucille Carroll.

Norma Learned, Colorado State College and Kathleen Purtell, St. Mary's College, Indiana, are entered as student dietitians at Hahnemann Hospital, and Elizabeth Hilf at Philadelphia General Hospital.

Virginia Dietetic Association. At the annual meeting reported in a previous issue, the following officers were elected: president, Bertha Ide, chief dietitian, Norfolk General Hospital; vice-president, Louise Mulherin, chief dietitian, U. S. Veterans Hospital, Hampton; secretary, Doris Woodward, dietitian, University of Virginia Commons, Charlottesville; treasurer, Mable Gladin, chief dietitian, St. Elizabeth's Hospital, Richmond.

Clara Soter, who completed her student work at Norfolk General Hospital, is now assistant dietitian, Elizabeth Buxton Hospital, Newport News. Louie Forester, formerly at General Hospital, Norfolk, has been appointed chief dietitian, King's Daughters Hospital, Portsmouth.

Each of the 100 counties and 4 cities in Virginia has established a nutrition committee in cooperation with the national nutrition defense program. The counties are divided into communities and in thickly populated areas are again subdivided into neighborhoods. Each unit has a man and woman lay member as co-chairmen. Three objectives are planned for each community: to discover the facts about nutrition conditions in that community and acquaint the people with these facts through existing organizations; to help establish or improve school lunches; and to persuade all those with a plot of ground to plant a vegetable garden. This last project will be carried out by volunteer lay workers.

Refresher courses of 10 lessons have been held in the city of Richmond for 55 home economics teachers, dietitians and cafeteria managers. As a result, members of this group are conducting a series of 10 lessons for women of Richmond who have registered for volunteer nutrition work under the civilian defense program. An all-day refresher course, conducted by Janet Cameron, nutritionist, was held in Blacksburg for professional workers of six nearby counties.

Wisconsin Dietetic Association. The State Nutrition Committee has sponsored a series of radio programs as follows: Frances Zuill, "Function of Wisconsin State Nutrition Committee"; Dr. C. A. Elvehjem, "Health as Seen by the National Nutrition Committee"; Ada B. Lothe, "Food Consumer Needs of the City"; Mary Brady, "Food Consumer Needs of the Rural People"; Gordon Gunderson, "The School Lunch as a Defense Measure"; Edith Bangham, "Nutritional Needs in F.S.A. Families"; Dr. Amy Hunter, "Nutrition in Relation to Maternal and Child Health"; and Sarah Ellen Wenger, "Alumni Research Foundation's Nutrition Program."

The association's executive staff, in discussing plans for furthering the nutritional defense program, voted to buy two $100 U. S. Savings Bonds.

At the association's booth at the Wisconsin State Fair emphasis was placed on nutrition in everyday family life. Cards entitled "Eating for More Abundant Health," explaining daily family needs, and which could be hung in the kitchen, were distributed.

A Nutrition Clinic sponsored in connection with recreation centers at Madison, is a joint project of the Madison Dietetic and Home Economics Associations. This activity begins October 13 and is directed by the following committee chairmen: Abby Marlatt, Nutrition; Edith Bangham, Posters; Aline Hazard, Radio; Hazel Jenks, Contact and Hospitality; Mrs. Harold McCormick, Publicity; and Beatrice Sylvester, Finance. All women's organizations in the city were asked to assist in promoting the program. Each organization appointed a

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representative to act as hostess or assistant at each clinic.

The Consumer Interests Committee of the Wisconsin Home Economics Association has summarized national defense activities pertaining to nutrition and other phases of home life, carried on by members of the state organization. A questionnaire was used to obtain this information.

The Milwaukee Dietetic Association at its final meeting of the year held a picnic on the campus of Milwaukee-Downer College, with Ruth Young as hostess. Ada B. Lothe reported on the National Nutrition Conference. In May a field trip preceded by a dinner was held at the Meadowbrook Country Club, Racine. Local officers elected are: president, Esther Shellman; president-elect, Hedwig Poehler; secretary Marion Kohlman; treasurer, Catherine Coffey.

A graduate has been selected from each of the Universities of Wisconsin, Purdue, Cornell, and Illinois, to take the special training course offered in the Dietary Department of the Residence Halls of the University of Wisconsin.

The following appointments have been announced: Eunice Dvorak, to Mt. Sinai Hospital; Marguerite Stahr, Hackensack Hospital, New Jersey, to Wisconsin General Hospital; Esther Sneberk, St. Mary's Hospital, Milwaukee, to Wisconsin General Hospital.

Recent graduates have received the following appointments: from the University of Wisconsin, Luba Lemish, to Memorial Union, Madison; Joan Wemborough, to the Verkamp Company, Cincinnati; Lewis Davis, to government service.

Elected officers of the Madison Dietetic Association are: president, Isla Jepson; president-elect, Eleanor Neesvig Biggen; secretary, Gertrude Schaefer. The final meeting of the year was held at Malitta Jensen's home. Chef Gulley, University Commons, discussed meat and vegetable preparation and demonstrated preparation and carving.

News from our Advertisers and Exhibitors. In view of the present interest in the national program for the enrichment of foods, it may be of interest that the synthesizing of riboflavin was first developed in the laboratory of *Hoffmann-La Roche, Inc.*, Nutley, New Jersey. According to Mr. Paul J. Cardinal, manager of the Vitamin Division, it is planned to manufacture riboflavin on a wide commercial scale later in the year. Mr. Cardinal writes that this firm also is fast becoming the nation's headquarters for the production of nicotinic acid.

Florida Citrus Commission, Lakeland, has prepared mimeographed tabular material which gives excellent economic comparisons of the sources of vitamin C. The cost of a variety of juices containing 100 mg. vitamin C is listed and comparisons are also made for a like amount of vitamin C in other foods. Included are suggestions for incorporating Florida citrus fruits in menus and the nutritive value of these fruits per 100 cc. of juice.

The special series "A" Sectional Control Thermolator Waterless Gas-Heated Hot Food Storage and Serving Table consists of a dry-heat hot food serving table with a recessed shelf below the carving board which may be used for the storage of plates during the serving periods. Each section has its individual burner pilot and indicating valve and may be obtained with or without visual thermostatic control. Because of this construction sections may be operated independently during off periods. Operating temperatures are reached quickly after heat is applied. Water pans, steam and waste connections are eliminated, making installation unusually flexible. The lower compartments are fitted with removable wire shelves arranged to accommodate two large-size meat pans or a number of soup or vegetable insets. These compartments are particularly desirable for the storage of surplus cooked foods that will be required during peak periods, and are designed so that the standardized insets may be taken directly from these compartments and set into the top openings for serving as the occasion demands. These storage compartments are fitted with an adjustable control, gas burning arrangement, similar to the type used in the upper compartments, and the foods may be stored at the proper serving temperature until ready to be used. The lower compartments are further fitted with drop doors, forming a continuation of the bottom platform, so that the insets or pans may be withdrawn without fear of spillage. This unit is manufactured by *Ershler & Krukin, Inc.*, Bayonne, New Jersey.

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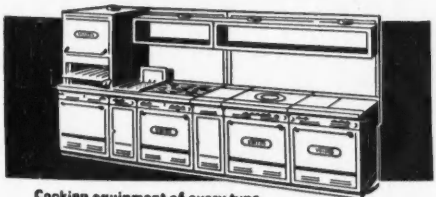

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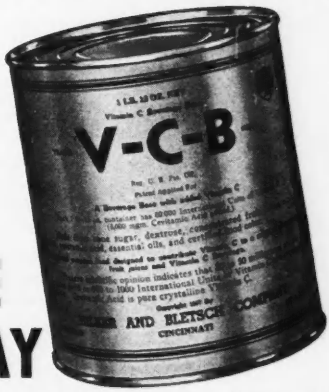

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cal Service Department with headquarters at the home office in Wyandotte, Michigan. The Wyandotte Technical Service Department is giving practical yet scientific assistance to food and beverage plants of all kinds that have cleaning, washing, or germicidal problems. This work is under the direction of Paul W. Soderberg.

The *Duke Manufacturing Company*, makers of "Thermaduke", a firm which was incorporated in 1925, announces the opening of a new modern plant in St. Louis on July 8. Gas and electric lines for connecting heavy-duty equipment for demonstration purposes have been installed in the sample room and three large ventilating and air-conditioning units furnish a circulating air system. The new factory building boasts the latest construction and equipment, and modern facilities for employees.

H. J. Heinz Company, Pittsburgh, announces the appointment of Carol Brueck and Elisabeth Leaman as co-directors of the Heinz Home Economics Department to succeed Frances Peck who recently resigned to be married. Miss Brueck holds a B.S. degree from Iowa State College where she majored in home economics and journalism. Miss Leaman holds a B.S. degree from Carnegie Institute of Technology. Both have been members of the Heinz Company for some time.

HAVE YOU HEARD?

The following material has been contributed by the members of the New York State Dietetic Association, and compiled by Mrs. Ethel Lewis Marth, 414 W. Gray St., Elmira.

Measuring utensils that are heat, acid and alkali-resistant are news. Made of glass, of course, by a new formula that retains the advantage of visibility while measuring and at the same time offers new features that are particularly appropriate for institution use, the set of "Pyrex" measures consists of 8, 16, and 32 oz. sizes. Each is calibrated accurately with red markings for cups or ounces. The measures possess rounded inner bottoms for complete mixing of small and large quantities of food by hand rotary beater or by machine, and are available in most houseware stores.

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WHO'S WHO IN THIS ISSUE

Grace Godfrey, B.S., University of Wisconsin; M.S., Teachers College, Columbia University; was director of home economics, Lindenwood College, Missouri, previous to her appointment as professor of home economics, Drexel Institute of Technology. She was later appointed director of home economics in the same institution and since 1933 has been dean of the School of Home Economics. Miss Godfrey is a former president of the Philadelphia Home Economics and Dietetic Associations and the Pennsylvania State Home Economics Association, and regional counsellor of the American Home Economics Association. She is a member of Omicron Nu.

Margaret A. Ohlson, A.B., State College of Washington; M.S. and Ph.D., Iowa State College, has held the positions of dietitian, Sacred Heart Hospital, Spokane, and assistant professor of home economics, Michigan State College, and at present is associate professor of foods and nutrition, Iowa State College. Her research interests have been in the fields of iron and copper metabolism and the nutritional status of college women.

Julia B. Mackenzie, A.B., Colorado College; R.N., Johns Hopkins Training School for Nurses; and Sc.D., Department of Biochemistry, School of Hygiene and Public Health, Johns Hopkins University, is at present acting associate in the forementioned Department of Biochemistry.

Herbert Pollack, M.D., is physician-in-charge, adult metabolism, Mt. Sinai Hospital, New York, and certified as a specialist by the American Board of Internal Medicine. He is a member of the American Society for Clinical Investigation, American Institute of Nutrition, and American College of Physicians. Dr. Pollack is the author of *Modern Diabetic Care* and is in private practice in New York.

Janette Kelley, B.S., Montana State College, is in charge of the Home Economics Department of Lever Brothers, Cambridge, Massachusetts. She is a member of her national, state and local dietetic associations, and local chairman of the Home Economics Women in Business.

Helen S. Mitchell, Ph.D., noted in this JOURNAL for February 1941, is research professor at Massachusetts State College and director of nutrition in the office of the administrator, Federal Security Agency, Washington.

Ida Jean Kain, B.S., Battle Creek College, writes a widely syndicated column, "Your Figure, Madame!", and is the author of *Prescription for Slimming* reviewed in this JOURNAL for October 1940. As stated then, Miss Kain is unusually well qualified to write on the subject of reducing, for in addition to her earlier experience as a hospital dietitian she holds the master's degree in health education from Columbia University, where she was also a student of the late Mary Swartz Rose. She has been writing the above mentioned column for the past nine years.

Lenna F. Cooper, chief, Department of Nutrition, Montefiore Hospital, New York, and **Mable MacLachlan,** director of the Department of Dietetics and Housekeeping, University Hospital, Ann Arbor, are especially qualified to speak on the subjects discussed in this JOURNAL as they have directed training courses for student dietitians for many years. **Phyllis Chamberlain,** therapeutic dietitian, Surgical Ward, Columbia-Presbyterian Medical Center, speaks from the standpoint of the student dietitian, as she completed her training at the Presbyterian Hospital in September 1940.